Air Quality Permitting
Statement of Basis

October 25, 2005

Tier I Operating Permit No. T1-040313

J. R. Simplot Co., Pocatello

Facility ID No. 077-00006

Prepared by:

Carole Zundel, Permit Writer
AIR QUALITY DIVISION

FINAL PERMIT

Table of Contents

Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
NO_X	nitrogen oxides
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
Simplot	J. R. Simplot Company, Don Plant
SO_2	sulfur dioxide
UTM	Universal Transverse Mercator
VOC	volatile organic compound

Public Comment / Affected States / EPA Review Summary

A 30-day public comment period for the J. R. Simplot Company – Don Siding Plant, draft Tier I operating permit was held in accordance with IDAPA 58.01.01.364, *Rules for the Control of Air Pollution in Idaho*. The public comment period for the permit was provided from November 1, 2004 through January 13, 2005, which includes a 45-day extension to the 30-day public comment period. A public hearing was held on January 12, 2005.

IDAPA 58.01.01.008.01 defines *affected states* as: *"All states: whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or that are within 50 miles of the Tier I source."*

A review of the site location information included in the permit application indicates that the facility is not located with 50 miles of a state border. The facility is located within 50 miles of the Fort Hall Indian Reservation, which meets the definition of an affected state per 40 CFR 71.2. Therefore, the Fort Hall Indian Reservation was provided an opportunity to comment on the draft Tier I operating permit.

Summary of Comments

Comments were received from the Fort Hall Indian Reservation, an affected state, as follows:

- Roger Turner, air quality officer, Shoshone-Bannock Tribes, letter to DEQ, dated 1/13/05
- Testimony of Nancy Eschief Murillo, chairwoman for the Fort Hall Business Council, Shoshone-Bannock Tribes, Fort Hall Indian Reservation and Exhibit No. A
- Testimony of Roger Turner, Shoshone-Bannock Tribes Air Quality Department
- Testimony of Kelly Wright, Shoshone-Bannock Tribes CERCLA/RCRA Program Manager
- Nancy Murillo, chairwoman for the Fort Hall Business Council, Shoshone-Bannock Tribes, letter to DEQ dated 1/12/05 and part of Exhibit A of the public hearing transcript

Comments were also received from the following sources:

- James Ward e-mail to DEQ, dated 11/21/04
- John Schmidt, chair, Eastern Idaho Group Sierra Club, e-mail to DEQ, dated 11/30/04.
- Justin Hayes, Program Director, Idaho Conservation League, letter to DEQ, dated 11/30/04
- Justin Hayes, Program Director, Idaho Conservation League, letter to DEQ, dated 12/20/04
- Randy Anderson, e-mail to DEQ, dated 12/21/04
- John Schmidt, Eastern Idaho Group of the Sierra Club, letter to DEQ, dated 1/12/05
- Alan Prouty, Director, Environmental and Regulatory Affairs, J. R. Simplot Company, Don Plant, letter to DEQ, dated 1/13/05
- Ted Olsen, GM writer, e-mail to DEQ, dated 12/28/04
- Beatrice Brailsford, e-mail to DEQ, in Hearing package, dated 1/13/05
- Jeff KenKnight, Manager, Federal & Delegated Air Programs Unit, U. S. Environmental Protection Agency, letter to DEQ dated April 8, 2005

A hearing was requested and held on January 12, 2005 in Pocatello, Idaho.

After the public comment period and public hearing, EPA was sent the proposed operating permit and the statement of basis for their 45-day review period. EPA did not provide any comments on the permit.

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.300, Rules for the Control of Air Pollution in Idaho, for issuing Tier I operating permits.

2. FACILITY DESCRIPTION

The facility is an integrated phosphate fertilizer manufacturing plant. The plant produces phosphoric acid, sulfuric acid, nitric acid, ammonia, several grades of solid and liquid fertilizers, and other commercial chemical products. A detailed process description can be found under each emissions unit group in the Tier I operating permit, as well as in the Tier I operating permit applications.

3. FACILITY / AREA CLASSIFICATION

J. R. Simplot Company, Don Plant (Simplot), is defined as a major facility because the facility emits or has the potential to emit PM_{10}, CO, NO_x, SO_2, and VOCs, each at over 100 T/yr. The facility is a designated facility as defined by IDAPA 58.01.01.006.27, and as such, is an existing PSD facility and subject to PSD permitting requirements. The SIC defining the facility is 2874, Phosphate Fertilizer Manufacturing, and the AIRS/AFS facility classification is A.

The facility is located within AQCR 061 and UTM zone 12. The facility is located in Power County which is designated as nonattainment for PM_{10} and unclassifiable for all other criteria pollutants (CO, NO_x, SO_2, lead, and ozone).

4. APPLICATION SCOPE

Simplot has requested, in a letter received on June 14, 2004, that Tier I Operating Permit No. T1-9507-114-1 be modified to accommodate Exhibit A to the settlement agreement reached on the appeal of Tier I Operating Permit No. 077-00006, issued December 24, 2002

4.1 Application Chronology

6/10/04	Settlement agreement signed
6/14/04	Administrative amendment request received
8/11/04	Request determined to be a request for a significant modification, and application determined complete.
8/20/04	Facility draft permit issued to the facility and to the DEQ Pocatello Regional Office
9/7/04	Comments received from facility
10/14/04	Draft for public comment issued
11/30/04	Request for public hearing and a 45-day extension received
1/12/05	Public hearing held
7/20/05	Response to comments completed
8/25/05	Proposed permit issued to EPA
9/16/05	Proposed permit sent to affected states
10/21/05	E-mail from EPA to DEQ confirming that EPA does not object to the permit and has no comments

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this permit action.

5.1 Emissions Inventory

This permit modification does not result in a change in emissions.

5.2 Modeling

No modeling is required for this permit action.

5.3 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this permit action.

The modifications were made to this permit according to Exhibit A of the settlement agreement signed on June 10, 2004. A copy of the settlement agreement is included as Appendix A of this statement of basis. The settlement agreement changes existing monitoring requirements of the Tier I operating permit. This constitutes a significant permit modification in accordance with IDAPA 58.01.01.382.

General Provisions 21.3.2 and 21.3.3 were updated to incorporate the applicable IDAPA rule changes which were made on February 5, 2004. The rule sections incorporated are IDAPA 58.01.01.322.11(c)(ii) and IDAPA 58.01.01.322.11(c)(iii).

5.4 Fee Review

The J. R. Simplot Company, Don Plant, facility is a major facility as defined in IDAPA 58.01.01.008.10 and is therefore subject to registration and registration fees in accordance with IDAPA 58.01.01.387. The facility is current with its registration fees.

6. PERMIT CONDITIONS

This section summarizes and explains the reasoning behind the changes in permit conditions in this Tier I Operating Permit modification.

General Provision 21.3.2 appears in the previous operating permit as follows:

"The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required by this Tier I operating permit. If necessary, the owner or operator shall identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the CAA which prohibits knowingly making a false certification or omitting material information;"

General Provision 21.3.2 appears in the current operating permit as follows:

"The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required by this Tier I operating permit."

General Provision 21.3.3 appears in the previous operating permit as follows:

"The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Paragraph 21.3.2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred;"

General Provision 21.3.3 appears in the current operating permit as follows:

"The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in Paragraph 21.3.2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred;"

General Provision 24 was changed to clarify the required semi-annual reporting period.

General Provision 24 appears in the previous operating permit as follows:

"In addition to all applicable reporting requirements identified in this permit, the permittee shall submit reports of any required monitoring at least every six months starting six months from December 24, 2002. All instances of deviations from this operating permit's requirements must be clearly identified in the report. All required reports must be certified in accordance with IDAPA 58.01.01.123."

General Provision 24 appears in the current operating permit as follows:

"In addition to all applicable reporting requirements identified in this permit, the permittee shall submit reports of any required monitoring at least every six months. The permittee's semiannual reporting periods shall be from December 24 to June 23 and June 24 to December 23. All instances of deviations from this operating permit's requirements must be clearly identified in the report. All required reports must be certified in accordance with IDAPA 58.01.01.123."

This change was made to clarify the reporting period. This change is being made to operating permits as they are modified or renewed.

Permit Condition 2.21 was changed to eliminate the references to fuels (coal and wood) that are not being used by the facility. This change is being made to existing permits as they are revised or renewed in order to eliminate extraneous requirements that do not apply to the facility.

Permit Condition 14.6.1 was revised according to the settlement agreement and according to comments that DEQ received from the facility on September 7, 2004. The revised permit condition requires increased testing of the cooling tower cells.

Original Permit Condition 14.6.1

The permittee shall conduct a compliance test within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the PM and PM_{10} hourly emissions limits in Permit Conditions 14.1 and 14.2.

During calendar years 2003, 2004, and 2005, compliance with the PM_{10} emissions limit in Permit Condition 14.2 shall be determined by conducting a Method 5 performance test on one of the cooling tower cells in each of the three reclaim cooling towers. The PM_{10} fraction of the PM emission rate determined during the test shall be determined by multiplying the PM emission rate by a 0.20 conversion factor.

During calendar years 2004 and 2005, Method 5 and 202 performance tests shall be conducted on one of the cooling tower cells in each of the three reclaim cooling towers in addition to the Method 5 test. All performance testing shall be conducted in accordance with Permit Condition 2.16.

No later than September 30, 2005, Simplot shall submit a permit application to revise the PM_{10} emission limits to reflect the results of the Method 5 and 202 performance tests. The permit application shall contain justification for each emission limit proposed. Once DEQ issues a permit with revised PM_{10} emission limits, compliance with Permit Condition 14.2 shall be determined by annual source testing using Methods 5 and 202 on one of the cooling tower cells in each of the three reclaim cooling towers. The annual source test shall be conducted as specified in Permit Condition 14.8.

Revised Permit Condition 14.6.1

"The permittee shall conduct a compliance test within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the PM and PM_{10} hourly emissions limits in Permit Conditions 14.1 and 14.2.

During calendar years 2003 and 2004, compliance with the PM_{10} emissions limit in Permit Condition 14.2 shall be determined by conducting a Method 5 compliance test on one of the cooling tower cells in each of the three reclaim cooling towers. During calendar year 2005, six cooling tower cells will be tested. The PM_{10} fraction of the PM emission rate determined during the test shall be determined by multiplying the PM emission rate by a 0.20 conversion factor.

During calendar years 2004, Method 5 and 202 tests shall be conducted on one of the cooling tower cells in each of the three reclaim cooling towers in addition to the Method 5 test. During calendar year 2005, six cooling cells will be tested. All compliance testing shall be conducted in accordance with Permit Condition 2.16.

No later than September 30, 2005, Simplot shall submit a permit application to revise the PM_{10} emissions limits to reflect the results of the Method 5 and 202 tests. The permit application shall contain justification for each emission limit proposed. Once DEQ issues a permit with revised PM_{10} emissions limits, compliance with Permit Condition 14.2 shall be determined by annual source testing using Methods 5 and 202 on two of the cooling tower cells in each of the three reclaim cooling towers. The annual source test shall be conducted as specified in Permit Condition 14.8."

Permit Condition 14.8 was revised in accordance with the settlement agreement to require increased testing of the cooling towers.

Original Permit Condition 14.8

With respect to the compliance testing in Permit Condition 14.6 and 14.7, the permittee shall test one of the cooling tower cells in each of the three reclaim cooling towers. The permittee shall select different cooling tower cells for testing from year to year until all of the cells within a particular cooling tower have been tested. Once all cells in a cooling tower have been tested the cell selection process shall start again.

Revised Permit Condition 14.8

With respect to the compliance testing in Permit Condition 14.6 and 14.7, the permittee shall, in 2003 and 2004, test one of the cooling tower cells in each of the three reclaim cooling towers. In and after 2005, the permittee shall test two cooling tower cells in each of the three reclaim cooling towers. The permittee shall select different cooling tower cells for testing from year to year until all of the cells within a particular cooling tower have been tested. Once all cells in a cooling tower have been tested the cell selection process shall start again.

Permit Condition 14.9, which requires monitoring of fluoride and particulates, was eliminated as shown in the red-line strike-out copy of the previous Tier I operating permit which was included in the settlement agreement. The condition required collection of data to be used to estimate fluoride and PM/PM_{10} emissions by mass balance.

The fluoride monitoring was based on a mass balance of fluoride by determining, from the water flow rate, the amount of fluoride entering the tower and subtracting the amount of fluoride leaving the tower. The difference is the amount of fluoride being emitted to the air. The concept is good, but because of inherent inaccuracies in the water flow meter, this method results in inaccurate apparent emissions, including apparent emissions of less than zero. The reason for this discrepancy is that the best accuracy that is guaranteed by the manufacturer of the flow meter for measuring water flows is +/- 0.25% of the flow rate. Combined with the amount of error and variability in the analytical measurements of the water for fluoride, this equates to an uncertainty of 213 pounds of fluoride per hour per cell. The permit limit is 4.9 pounds of fluoride per hour per cell. Thus, it would erroneously appear at times that the cooling tower has less than zero fluoride emissions. Therefore, the fluoride monitoring method originally written in the permit is ineffective for determining fluoride emissions. See also Appendix B, Technical Analysis, Fluoride Mass Balance for Reclaim Cooling Towers, March 3, 2004.

DEQ is currently exploring alternative monitoring methods for the cooling towers. If an alternative method is determined is feasible, it will be written as permit conditions in a Tier II operating permit and incorporated into a revised Tier I operating permit. In the interim, the facility is required to measure the actual emissions through source testing in Permit Conditions 14.6.1 and 14.8 of this Tier I operating permit.

Table 10.1 was revised to show that the gypsum stack emissions are fugitive and are controlled by reasonable control of fugitive emissions, as follows:

Previous Table 10.1:

Table 10.1 specifies the emissions points related to the gypsum stack.

Table 10.1 EMISSIONS UNIT AND POINTS

Emissions Unit	*Source ID*	*Control Device*	*Emissions Point*
Gypsum stack	*1701*	*None*	*Gypsum stack pond*
	1712	*None*	*Dike building activities*
	1713	*None*	*Wind-blown dust*

Revised Table 10.1:

Table 10.1 specifies the emissions units related to the gypsum stack.

Table 10.1 EMISSIONS UNIT AND POINTS

Emissions Unit	*Source ID*	*Control Device*	*Emissions Point*
Gypsum stack pond	*1701*	*Reasonable control of fugitive emissions*	*Fugitive*
Dike building activities	*1712*		
Wind-blown dust	*1713*		

Permit Condition 15.15 was corrected to replace the phrase "primary control scrubber" with "extended absorption scrubber." This permit condition was modified in a previous permit revision, but only the second reference to the primary control scrubber was changed. The first reference was inadvertently not changed.

Previous Permit Condition 15.15:

On or before December 31, 2004, the permittee shall either conduct a compliance test to measure CO emissions from the SPA primary-control scrubber stack utilizing a pollutant-specific method promulgated by the EPA, a DEQ-approved alternative, or use DEQ's emission estimation methods used in the analysis of the "Extended Absorption Scrubber," PTC No. 077-00006, dated April 17, 1990, to demonstrate compliance with the CO limit in Permit Condition 15.3.

Revised Permit Condition 15.15:

On or before December 31, 2004, the permittee shall either conduct a compliance test to measure CO emissions from the SPA extended absorption scrubber stack utilizing a pollutant-specific method promulgated by the EPA, a DEQ-approved alternative, or use DEQ's emission estimation methods used in the analysis of the "Extended Absorption Scrubber," PTC No. 077-00006, dated April 17, 1990, to demonstrate compliance with the CO limit in Permit Condition 15.3.

The permit conditions regulating fluoride in vegetation are state-only permit conditions. The references for Permit Conditions 2.23.2 and 2.24 were changed to show that they are state-only provisions.

In summary, Permit Conditions 2.21, 2.23.2, 2.24, 14.6.1, 14.8, 15.15, and Table 10.1 were modified. Also, General Provisions 21.3.2, 21.3.3, and 24 were updated. The rest of the permit remains unchanged.

7. PUBLIC COMMENT

A draft permit was issued to the facility on August 20, 2004. DEQ received comments from the facility for minor changes to Permit Condition 14.6.1. These changes were made as requested and are documented in Section 6 of this statement of basis.

A 30-day public comment period for the J. R. Simplot Company – Don Siding Plant, draft Tier I operating permit was held from in accordance with IDAPA 58.01.01.364, *Rules for the Control of Air Pollution in Idaho*, from November 1, 2004 through January 13, 2005, which includes a 45-day extension to the 30-day public comment period.

A public hearing was held on January 12, 2005.

Responses to comments are provided in the Public Response Package.

8. RECOMMENDATION

Based on review of application materials and all applicable state and federal rules and regulations, staff recommend that Tier I Operating Permit No. T1-040313 be issued for the incorporation of Exhibit A of the June 10, 2004 settlement agreement.

CZ/sd Permit No. T1-040313

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APPENDIX A

June 10, 2004
Settlement Agreement

SHEILA G. BUSH (#3248)
J.R. Simplot Company
P.O. Box 27
Boise, ID 83707-0024
Telephone: (208) 389-7361
Facsimile: (208) 389-7464

Attorneys for Petitioner

LAWRENCE G. WASDEN
Attorney General

CLIVE J. STRONG
Deputy Attorney General
Chief, Natural Resources Division

LISA J. KRONBERG (#4043)
Deputy Attorney General
Department of Environmental Quality
1410 N. Hilton, 2nd Floor
Boise, Idaho 83706
Telephone: (208) 373-0494
Facsimile: (208) 373-0481

Attorneys for Respondent

BEFORE THE BOARD OF ENVIRONMENTAL QUALITY
STATE OF IDAHO

The J. R. Simplot Company Air Quality Tier I Operating Permit and Permit to Construct Number 077-00006 (Don Siding Plant) Petitioner, v. Idaho Department of Environmental Quality, Respondent.	Docket No. 0101-03-07 SETTLEMENT AGREEMENT

The parties to the above-captioned action hereby stipulate and agree as follows:

1. Simplot shall submit a permit modification that requests the changes indicated on Exhibit A (revised pages 72-74 of the Don Plant Tier I permit) by June 14, 2004. This modification will be processed by IDEQ as expeditiously as possible without payment of permit application or processing fees. The changes implement the parties' settlement of the sole remaining issue on appeal, cooling tower monitoring, by requiring the testing of six (6) cells per year, instead of three (3) cells per year (as was previously required). The parties also note that IDEQ intends to continue to evaluate some form of additional or different periodic monitoring for the cooling towers, and plans to solicit Simplot's participation in this effort.

2. Filed concurrently with this Agreement is a Stipulation and Proposed Order for Dismissal of this contested case.

DATED this 10th day of June, 2004.

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL

LISA J. KRONBERG
Deputy Attorney General
Attorney for Respondent

DATED this 10th day of June, 2004.

SHEILA G. BUSH
Attorney for Petitioner

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 18th day of June, 2003, a true and correct copy of the foregoing was served on the following as indicated below:

Steven Thomsen
Meyers, Thomsen & Larson
P.O. Box 4747
Pocatello, ID 83205-4747

- ☐ United States Mail, Postage Prepaid
- ☒ Facsimile to 208-233-4174
- ☐ Hand Delivery
- ☐ Overnight Courier

Sheila Bush
J.R. Simplot Company
P.O. Box 27
Boise, ID 83707-0027

- ☐ United States Mail, Postage Prepaid
- ☒ Facsimile to 389-7464
- ☐ Hand Delivery
- ☐ Overnight Courier

Lisa Kronberg

Permit Limits / Standard Summary

14.1 Particulate Matter Emissions

14.1.1 Particulate matter emissions from each cell of the reclaim cooling towers shall not exceed 17.65 lb/hr and 77.31 T/yr. The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

[Tier II Permit No. 077-00006, 12/3/99]

14.1.2 Based on the process weight rate equation the limit is 40.7 lb/hr per cell using a flowrate of 3,750 gpm per cell (30,000 gpm to the cooling tower). Because Condition 14.1.1 is more stringent, compliance with Condition 14.1.1 shall be deemed compliance with Condition 14.1.2.

[IDAPA 58.01.01.701, 4/5/00]

14.2 The PM_{10} emissions from each cell of the reclaim cooling towers shall not exceed 3.53 lb/hr, and 15.48 T/yr. The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

[Tier II Permit No. 077-00006, 12/3/99]

14.3 Fluoride emissions from each cell of the reclaim cooling towers shall not exceed 4.9 lb/hr and 21.70 T/yr. The ton-per-year emissions limit shall be determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the actual hours per year the process(es) venting to this stack operate(s).

[Tier II Permit No. 077-00006, 12/3/99]

Operating Requirements

14.4 No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to this paragraph must certify to the Administrator annually that he/she has complied with the requirements contained in this section.

[40 CFR 63.602(e)]

14.5 The permittee shall operate the mist-eliminator control device at all times during operation of the reclaim cooling towers.

[IDAPA 58.01.01.322.01, 3/19/99]

Monitoring and Record-keeping Requirements

14.6 PM and PM_{10} Compliance Tests:

14.6.1 The permittee shall conduct a compliance test within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the PM and PM_{10} hourly emissions limits in Permit Conditions 14.1 and 14.2.

During calendar years 2003, and 2004, ~~and 2005,~~ compliance with the PM_{10} emissions limit in Permit Condition 14.2 shall be determined by conducting a Method 5 performance test on one of the cooling

EXHIBIT

tower cells in each of the three reclaim cooling towers. The PM_{10} fraction of the PM emission rate determined during the test shall be determined by multiplying the PM emission rate by a 0.20 conversion factor.

During calendar years 2004 and 2005, Method 5 and 202 performance tests shall be conducted on one of the cooling tower cells in each of the three reclaim cooling towers in addition to the Method 5 test. During calendar year 2005, six cooling cells will be tested. All performance testing shall be conducted in accordance with Permit Condition 2.16.

No later than September 30, 2005, Simplot shall submit a permit application to revise the PM_{10} emissions limits to reflect the results of the Method 5 and 202 performance tests. The permit application shall contain justification for each emission limit proposed. Once DEQ issues a permit with revised PM_{10} emissions limits, compliance with Permit Condition 14.2 shall be determined by annual source testing using Methods 5 and 202 on ~~one~~two of the cooling tower cells in each of the three reclaim cooling towers. The annual source test shall be conducted as specified in Permit Condition 14.8.

[IDAPA 58.01.01.322.06, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

14.6.2 Reserved.

14.6.3 The permittee shall conduct a visible emissions evaluation during each compliance test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[Tier II Permit No. 077-00006, 12/3/99]

14.7 Total Fluorides Compliance Tests

14.7.1 The permittee shall conduct compliance tests within 12 months of, or 12 months prior to, December 24, 2002 to demonstrate compliance with the total fluorides hourly emissions limit in Permit Condition 14.3.

[IDAPA 58.01.01.322.06, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

14.7.2 The permittee shall conduct a visible emissions evaluation during each compliance test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

[IDAPA 58.01.01.322.06, 5/1/94; Tier II Permit No. 077-00006, 12/3/99]

14.7.3 After the first compliance test is fulfilled as required in this permit condition, the permittee shall conduct a compliance test once per annum to demonstrate compliance with the hourly total fluorides emissions limit in Permit Condition 14.3 as specified in Permit Condition 14.8.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00; Tier II Permit No. 077-00006, 12/3/99]

14.8 With respect to the compliance testing in Permit Condition 14.6 and 14.7, the permittee shall, in 2003 and 2004, test one of the cooling tower cells in each of the three reclaim cooling towers. In and after 2005, the permitee shall test two cooling tower cells in each of the three reclaim cooling towers. The permittee shall select different cooling tower cells for testing from year to year until all of the cells within a particular cooling tower have been tested. Once all cells in a cooling tower have been tested, the cell selection process shall start again.

[Tier II Permit No. 077-00006, 12/3/99]

~~14.9 Total Fluoride and PM/PM_{10} Monitoring~~

~~14.9.1 The permittee shall continuously monitor and record weekly, in gallons per hour, the flow rates at the total inlet and the total outlet streams to the reclaim cooling towers.~~

~~[IDAPA 58.01.01.322.01, 3/19/99; IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]~~

~~14.9.2 The permittee shall measure and record the total fluoride concentrations (expressed as HF), total suspended solids, and total dissolved solids in pounds per gallon contained in the total inlet and the total outlet streams for the reclaim cooling towers on a weekly basis.~~

~~[IDAPA 58.01.01.322.01, 3/19/99; IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]~~

~~14.9.3 The permittee shall determine the total fluorides (expressed as HF), total suspended solid, and total dissolved solid flow rates of the total inlet stream (in lb/hr) by multiplying the total inlet flow from Permit Condition 14.9.1 by the total inlet fluoride concentration, total suspended solids, and total dissolved solids from Permit Condition 14.9.2. The permittee shall determine the fluoride, total suspended solid, and total dissolved solid flow rates of the total outlet stream (in lb/hr) by multiplying the total outlet flow from Permit Condition 14.9.1 with the total inlet fluoride concentration, total suspended solids, and total dissolved solids from Permit Condition 14.9.2. The permittee shall determine (in lb/hr) the total fluoride, suspended solid, and dissolved solid flow rates in the gaseous effluent stream of the reclaim cooling towers (total fluoride and PM emissions from the cooling towers) by subtracting the flow rate of the total outlet stream from the flow rate of the total inlet stream.~~

~~[IDAPA 58.01.01.322.01, 3/19/99; IDAPA58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]~~

~~14.10~~14.9 The permittee shall identify the entire flow path of all scrubber output and submit it to DEQ on or before the issuance of this permit.

[IDAPA 58.01.01.322.01, 3/19/99]

APPENDIX B

Technical Analysis
Fluoride Mass Balance for Reclaim Cooling Towers
March 3, 2004

Technical Analysis

March 3, 2004

J. R. Simplot – Don Plant, Pocatello

Fluoride Mass Balance for Reclaim Cooling Towers

Prepared by:

Zach Klotovich, Air Quality Engineer
Division of Technical Services

PURPOSE

The purpose for this memorandum is to verify the validity of J.R. Simplot Company's (Simplot's) mass balance precision estimate for fluoride emissions from the reclaim cooling towers at the Don Plant. Simplot concluded in their February 17, 2004 memo that the required precision cannot be achieved using a mass balance determination to assess compliance with fluoride emission limits.

PROJECT DESCRIPTION

There is concern over the accuracy of the current methodology used to measure total fluoride emissions from the reclaim cooling towers. A mass balance approach was investigated to determine if it could provide a more accurate estimate of emissions.

TECHNICAL ANALYSIS

The reclaim cooling tower fluoride emission limit in Tier I Operating Permit No. 077-00006, issued December 24, 2002, is 4.9 pounds of fluoride per hour per cell. There are eight cells in the reclaim cooling tower, making the total emission limit 39.2 pounds of fluoride per hour.

Simplot attempted to identify the most accurate fluoride balance they could reasonably determine to see if a mass balance approach could be used for determining compliance with fluoride emissions limits. A mass balance determination would involve buying and installing flow meters and density meters on the inlet and outlet streams as well as analyzing the fluoride concentration of each of the metered streams.

Simplot noted that the nominal water flow rate through the cooling tower is 20,000 gallons per minute, the water density is 62.43 lb/ft^3, and the nominal fluoride concentration is 0.8%. Using this data, the calculated mass of fluoride moving through the cooling towers is approximately 80,100 lb/hr. The inaccuracy of the flow meter alone, assuming a high meter accuracy of 0.25%, is large enough that compliance with a 39.2 lb/hr limit cannot be determined (80,100 * ±0.0025 = ±200 lb/hr).

Xin Dai, a DEQ Scientist with a masters degree in statistics, reviewed Simplot's mass balance precision estimate and agreed with the uncertainty calculation. She ran 1,000 simulated samples using statistical software S-PLUS with a given flow rate of 20,000 gal/min, density of 62.43 lb/ft^3, and fluoride concentration of 0.8%, with corresponding relative errors of 0.25%, 0.1%, and 2%. The standard deviation of the fluoride mass from the 1,000 simulated samples is 1,641 lb/hr. Dr. Dai's memo can be found in Attachment A.

Flow Meter Accuracy

In the relative accuracy calculations Simplot used a flow meter accuracy of ±0.25%, which would be an extremely, and uncommonly, good accuracy. DEQ reviewed a technical paper from the Cooling Technology Institute (CTI) that evaluated the performance of various types of insertable and non-invasive flow measurement instruments under controlled conditions that simulate those encountered in the field.[1] In this study, various types of flow meters including a Simplex pitot tube, multi-port averaging pitot meter, ultrasonic meter, insertion type magnetic meter, and insertion type turbine meter were studied under various flow conditions around a loop of 10" pipe and resulting readings were compared to a primary flow meter. The primary flow meter was a

[1] Huber, Mark S., and Robert P. Miller. 2003. *Flow Meters and All that Jazz.* Cooling Technology Institute. Paper No: TP03-02

calibrated Krohne magnetic flow meter placed after both a VORTAB flow conditioner and a pipe bundle flow conditioner. The study resulted in the following summary:

1. There are several flow meters available that when properly applied can provide reasonably accurate flow measurements in the field. These include the Simplex pitot tube at flow velocities of 8 fps or less; the transit time ultra-sonic meters; and possibly, with some individual calibration, the multi-port averaging pitot; and finally, with some additional refinement by the manufacturer, the multi-point magnetic meter.

2. Practically speaking, accuracies on the order of ±3% are the best that can be expected with the field type measurements typically encountered in the field testing cooling towers and similar equipment. However, it cannot be emphasized strongly enough that any compromise in siting or methodology can quickly increase this value to ±10% or possibly more.

3. The thing that counts in flow measurement is location. The data produced by any meter installed with less than 15 pipe diameters of undisturbed flow upstream and 4 diameters downstream is subject to question and for tests where a great deal is at stake all parties should insist on a flow measurement "according to the book."

The Cooling Technology Institute also has a standard for water flow measurement[2] with the purpose of obtaining accurate measurements of flow into and out of cooling towers. The standard recommends monitoring the circulating water flow, make-up water flow, and blowdown flow during a test. It appears the standard was developed for the regular cooling tower configuration one might find associated with a power plant. The flow configuration at the Don Plant is more complex because some water is circulated to decant ponds before going back to the process. CTI's water flow measurement standard contains piping requirements, a list of contaminants or disturbances that may cause loss of measurement accuracy, types of primary flow measurement devices and methods, primary device calibration standards, and types of flow signal conditioning and readout. The CTI's basic reference standard flow measurement instrument is the pitot tube. The water flow measurement standard does not provide attainable accuracy, it only states, "The accuracy of the measurement depends on the location and type of instrument used and the stability of the test conditions."

Summary

The measurement devices available are not accurate enough to determine compliance with the fluoride emissions limits on Simplot's reclaim cooling tower using a mass balance approach. A small inaccuracy in measurement of only one monitored parameter produces variability in calculated mass emissions of fluoride that is greater than the emissions limit. This is a result of the high water flow rates through the cooling tower (10,000,000 lb/hr) and the relatively small fluoride emission limit (39.2 lb/hr).

ZK

[2] Cooling Technology Institute. July 1995. Standard for Water Flow Measurement. CTI Bulletin STD-146.

ATTACHMENT A

Xin Dai Memo

Validation of Precision Estimate of Fluoride Mass Balance for Simplot's Don Plant, Phosphoric Acid Plant, Cooling Tower

MEMORANDUM

TO: **Zach Klotovich, Discipline Lead, Process Engineering**

FROM: **Xin Dai, Scientist, Life Sciences**

SUBJECT: Validation of Precision Estimate of Fluoride Mass Balance for Phos Acid Plant's Cooling Tower

Objective: This memo is to verify the precision estimation of fluoride mass balance submitted by Simplot for DEQ review on February 17, 2004.

Results: Precision of fluoride mass balance technique was evaluated using worst scenario and simulation approaches. Estimated precision is 2.4% under worst scenario given the inherent measurement inaccuracies in the submittal. Given the flow rate of 20,000 gal/min, density of 62.43 lb/ft^3 and concentration of fluoride of 0.8%, with corresponding relative errors of 0.25%, 0.1% and 2%, simulation was performed by making 1,000 random withdrawals for each above parameter and the resulting mass of fluoride was calculated. The simulation results showed that mean and median fluoride mass, 80,150 lbs/hr and 80,200 lbs/hr, respectively, agree with reported 80,121 lbs/hr. Standard deviation of the 1,000 sample simulated fluoride mass is 1,641 lbs/hr, equivalent to 2.05% inaccuracy compared to the mean mass. Reported inaccuracy rate (relative uncertainty) is 2.018%, not significantly different from the simulation. The simulation was performed under the following assumptions: 1) flow rate, density, and fluoride concentration are normally distributed with given amounts and relative uncertainties; 2) relative uncertainties in the above three parameters are independent of each other; for instance, the flow rate measurement uncertainty remains constant regardless of changes in density and fluoride concentration.

Conclusions: DEQ staff did not find a distinguishable difference in relative uncertainty for the mass balance technique from that reported in the submittal. However, it should be noted that this mass balance approach is to quantify all possible sinks/generations within the system (i.e. the cells) but not only the fluoride concentration in the air.

Background: Fluoride in stream is calculated by:

$M_F = Q^*\rho^*C_F$ -- Equation [1]

where,

M_F = mass flow rate of fluoride, lbs/hr

Q = volumetric flow rate of liquid stream, gal/min

ρ = density of liquid, lb/ft^3

C_F = percent concentration of fluoride in the liquid stream

Given: $Q = 20{,}000$ gal/min $\pm$ 0.25%

$\rho = 62.428$ $lb/ft^3 \pm 0.1\%$

$C_F = 0.8\% \pm 2\%$

Worst Case Scenarios:

Case 1: Fluoride mass is overestimated by the relative uncertainties to the maximum extent. Therefore, relative inaccuracy of the mass calculation is:

$(1+0.0025)*(1+0.001)*(1+0.02)-1 = 0.0236 \approx 2.36\%$

Case 2: Fluoride mass is underestimated by the relative uncertainties to the maximum extent. Therefore, relative inaccuracy of the mass calculation is:

$(1-0.0025)*(1-0.001)*(1-0.02)-1 = 0.0234 \approx 2.34\%$

Simulation:

Distribution assumptions for the Q, ρ and C_F are:

Q ~ Normal (20,000 gal/min, 50 gal/min)
ρ ~ Normal (62.43 lbs/ft^3, 0.06243 lbs/ft^3)
C_F ~ Normal (0.8%, 0.016%)

Normal distribution is characterized by the mean (μ) and the standard deviation (σ). Here, the σ = relative uncertainty*μ. Therefore, σ =20,000*0.25%=50 (gal/min) for flow rate. The same standard deviation calculation applies to ρ and C_F. One thousand random draws each were made for Q, ρ and C_F and the fluoride mass was calculated using Equation [1]. For the 1,000 simulated fluoride mass calculations, the average is 80,150 lbs/hr and the median is 80,200 lbs/hr. Standard deviation of the 1,000 calculations is 1,641 lbs/hr, equivalent to 2.04% relative uncertainty. Detailed S-PLUS output can be found in the appendix below. A histogram of the 1,000 simulated mass results indicate that given the flow, density and concentration, fluoride mass is centered at 80,150 lbs/hr and spread evenly around the mean with magnitude of 1,641 lbs/hr. These results agree with those reported in the submittal, which were 80,121 and 1,617 lbs/hr respectively. Calculations in the submittal are valid.

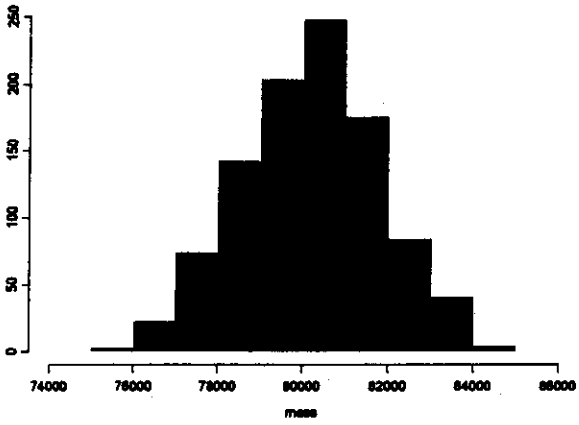
Appendix:

Simulation output:

```
Number of simulation = 1000
> summary(mass)
   Min. 1st Qu. Median  Mean 3rd Qu.  Max.
 74850   79040  80200 80150   81260 85020

> stdev(mass)
[1] 1641.195
```

> hist(mass)



Air Quality Permitting
Response to Public Comments

July 20, 2005

Tier I Operating Permit No. T1-040313

J. R. Simplot Co., Pocatello

Facility ID No. 077-00006

Prepared by:
Dan Pitman, P.E., Coordinator
Carole Zundel, Permit Writer
AIR QUALITY DIVISION

PROPOSED FOR EPA REVIEW

Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
NO_X	nitrogen oxides
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
Simplot	J. R. Simplot Company, Don Plant
SO_2	sulfur dioxide
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. BACKGROUND

As required by IDAPA 58.01.01.364.05 of the Rules for the Control of Air Pollution in Idaho (Rules), the Idaho Department of Environmental Quality (DEQ) provided draft modifications to Tier I Operating Permit No. TI-040313 for J. R. Simplot located in Pocatello, for public notice and comment. The Tier I Operating Permit was issued in December 2002. Simplot filed a Petition to contest numerous terms and conditions of the permit in January 2003. On April 5, 2004, after a public comment period, a modified Tier I Operating Permit was issued as partial settlement of the contested case. This permit modification action addresses the final issue resolved under the contested case – the cooling tower monitoring. DEQ's response to comment No. 15 explains why the changes were proposed. Public comment packages, which included the application to modify materials, the draft modified provisions, and the associated air quality statement of basis, were made available for public review at DEQ's Pocatello Regional Office, the Marshall Library, DEQ's state office in Boise, and on DEQ's web site. A copy of the draft modifications to Tier I Operating Permit No. TI-040313 and the statement of basis was also posted on DEQ's Web site. The public comment period for the permit was provided from November 1, 2004 through January 13, 2005, which includes a 45-day extension to the 30-day public comment period. A public hearing was held on January 12, 2005.

The following is a summary list of all documents received from the public containing comments on the above referenced permit action. There were several requests for a public hearing and an extension of the public comment period. These requests are not individually listed, and were addressed by extending the public comment period for 45 days and holding a public hearing on January 12, 2005.

1. James Ward e-mail to DEQ, dated 11/21/04
2. John Schmidt, chair, Eastern Idaho Group Sierra Club, e-mail to DEQ, dated 11/30/04.
3. Justin Hayes, Program Director, Idaho Conservation League, letter to DEQ, dated 11/30/04
4. Justin Hayes, Program Director, Idaho Conservation League, letter to DEQ, dated 12/20/04
5. Randy Anderson, e-mail to DEQ, dated 12/21/04
6. John Schmidt, Eastern Idaho Group of the Sierra Club, letter to DEQ, dated 1/12/05
7. Alan Prouty, Director, Environmental and Regulatory Affairs, J. R. Simplot Company, Don Plant, letter to DEQ, dated 1/13/05
8. Roger Turner, air quality officer, Shoshone-Bannock Tribes, letter to DEQ, dated 1/13/05
9. Ted Olsen, GM writer, e-mail to DEQ, dated 12/28/04
10. Beatrice Brailsford, e-mail to DEQ, in Hearing package, dated 1/13/05
11. Testimony of Nancy Eschief Murillo, chairwoman for the Fort Hall Business Council, Shoshone-Bannock Tribes, Fort Hall Indian Reservation and Exhibit No. A

12. Testimony of Roger Turner, Shoshone-Bannock Tribes Air Quality Department

13. Testimony of Kelly Wright, Shoshone-Bannock Tribes CERCLA/RCRA Program Manager

14. Nancy Murillo, chairwoman for the Fort Hall Business Council, Shoshone-Bannock Tribes, letter to DEQ dated 1/12/05 and part of Exhibit A of the public hearing transcript

15. Jeff KenKnight, Manager, Federal & Delegated Air Programs Unit, U. S. Environmental Protection Agency, letter to DEQ dated April 8, 2005

2. PUBLIC COMMENT AND RESPONSES

This section provides the air quality related comments submitted on the proposed action and DEQ's responses to those comments. Based on the application materials and the Rules, DEQ has responded only to those comments that directly relate to the air quality aspects of the permit.

Comments taken from James Ward e-mail, dated 11/21/04

Comment No. 1

Being over 50 years of age and raised under the smoke stacks of Simplot and FMC, I can clearly state that you have done nothing to protect the workers or public from J. R. Simplot. Why after more than 50 years do you allow the gyp pond to blow over Pocatello? Do you know that in that fine dust there are bugs (part of a test), when they get into your lungs they rehidrate [sic]. Stop the dust from all roadways in and around Simplots NOW! I am on Oxygen 24/7 thanks to your lack of enforcement...and judgement [sic] when it comes to J. R. Simplot.

DEQ Response to Comment No. 1

The terms and conditions of the Tier I Operating Permit out to comment in this action only include those terms and conditions modified or changed from the Tier I Operating Permit issued in 2004. As noted in the Background above, these changes address modification to the cooling tower monitoring. Your comment does not pertain to the changed terms and conditions open for public comment. Nevertheless, DEQ is providing a brief response to this comment even though the comment is not specific to this permit action.

This permit action is a Tier I operating permit. The purpose of the Tier I operating permit program is to consolidate all existing applicable requirements into one document. The Tier I operating permit process is administrative in nature and does not establish new standards or emissions limits.

The Tier I Operating permit has all requirements that apply to the gyp stack emissions, including the requirement to reasonably control fugitive dust emissions in accordance with IDAPA 58.01.01.650. This rule states that reasonable control of fugitive emissions may include use of work practices, control equipment, water, chemicals or control equipment. This existing applicable requirement does not dictate that any one of these methods be used, it simply states that these methods may be considered reasonable. Periodic inspections are required to assure fugitive dust is being reasonably controlled. The fugitive dust control requirements and monitoring requirements are listed in the Tier I Operating permit in Section 2.1 through 2.4.

The DEQ Pocatello Regional Office has the responsibility for inspection and investigation of any complaints received from the public in the Pocatello area. DEQ responds to a wide variety of complaints in different media, including air, water, and waste. The general complaint process is as follows:

1. A complaint form is filled out upon receipt of a public complaint. Information regarding the person's name, address, and the specifics about the complaint is recorded on the form.
2. The form is assigned to appropriate DEQ staff for complaint investigation.
3. Assigned DEQ staff investigates the complaint, which may include site visits as necessary.
4. The complaint evaluation and action(s) taken are documented and filed in the complaint files. Follow up site visits are taken as necessary.

Comments taken from John Schmidt e-mail, dated 11/30/04

Comment No. 2

I would like to request that DEQ hold a public hearing on JR Simplot's Tier 1 operating permit. I would also like to request that the comment period be extended beyond the holiday season so that members of the public can attend the public hearing and then have time to adequately prepare their comments. A 45-day extension would give us adequate time.

DEQ Response to Comment No. 2

A public hearing was scheduled and held on January 12, 2005. The public comment period was extended from November 30, 2004 to January 13, 2005.

Comments taken from Justin Hayes, Program Director, Idaho Conservation League, letter to DEQ, dated 11/30/04

Comment No. 3

Section 1.2 outlines the various permits, consent orders and settlement agreements that are incorporated in this tier 1 permit. Here, DEQ incorporates the Tier II Permit No. 077-00006, issued December 3, 1999 and expired on June 29, 2000.

We believe that it is inappropriate for DEQ to rely on the emissions limits, monitoring, record keeping and/or reporting requirements from expired permits. Rather, DEQ needs to ensure that all expired permits are replaced by current (i.e. non-expired) permits prior to issuance of a tier 1 permit for the facility as a whole.

DEQ Response to Comment No. 3

Please see the first paragraph of the response to Comment No. 1.

Simplot is required to submit an application to renew the expired Tier II operating permit. DEQ will request that Simplot submit a complete application to renew the Tier II operating permit.

Comment No. 4

At several points in the draft Tier I, DEQ references permits or other documents that are neither listed in section 1.2 nor approved via the issuance of a final permit. For instance, in Section 10.9, DEQ references methods for demonstrating compliance with fluoride emissions and PM_{10} emissions that are found in Simplot's June 29, 2000 Tier I/II application. It is inappropriate for DEQ to rely on methodologies and techniques for demonstrating compliance if these practices have not been vetted to completion in a permitting process or are EPA approved practices. If DEQ wishes to incorporate the methodologies into this permit, DEQ needs to vet these matters as part of this permitting process and provide the public the opportunity to review and comment on these matters.

DEQ Response to Comment No. 4

Please see the first paragraph of the response to Comment No. 1.

These emission monitoring methodologies were subjected to the Tier I permitting process, including a public comment period which occurred prior to the issuance of the December 24, 2002 Tier I operating permit.

There are six permit conditions in the Tier I operating permit (Sections 4.13, 4.14, 7.22, 8.22, 10.9, and 12.5) that incorporate procedures contained in the application submitted on June 29, 2000. Though these conditions are enforceable in the Tier I permit, DEQ recognizes the difficulty to understand what the requirements are if they are not specifically listed in the permit. Therefore, DEQ intends to revise these permit conditions during the Tier I renewal process to include the relevant requirements in the permit rather than incorporation by reference.

Comment No. 5

The draft permit fails to ensure that appropriate controls are being implemented to control fugitive emissions from the Gypsum stack. Indeed, there is a total lack of emission controls at this emission unit. This lack of controls appears to be supported by a Tier II. This Tier II is referenced in Table 10.2. As noted in our comments above, this Tier II appears to be expired. Again, the use of conditions from an expired permit is inappropriate. At this time, the Gypsum Stack does not have any control devices (or practices). This highlights the need for DEQ to either require a Tier II for this emissions unit prior to the issuance of this Tier I permit or use the underlying IDAPA rules governing fugitive particulate matter to ensure appropriate measures are enforced.

DEQ Response to Comment No. 5

Please see response to Comments No. 1 and 3.

Comment No. 6

Assuming the Gypsum Stack a source of fugitive emissions, then the operator must comply with IDAPA rules governing fugitive PM – requiring the facility to take all reasonable precautions to control fugitive emissions. Table 10.1 reports that the "control device" employed at the emissions unit group (the gypsum stack) is "none" (i.e. there are no control devices at this unit). This provision of the permit is counter to Idaho law because it is not consistent with the IDAPA requirement that fugitives be reasonably controlled.

While it does seem that the Gypsum Stack would be classified as a fugitive source of pollutants, the information is tables 10.1 and 10.2 actually seem to infer that the gypsum stacks may not be fugitive sources. Table 10.1 lists the "emissions point" of the three sources ID's as "Gypsum stack pond," "Dike building activities," and "Wind-blown dust." Language identifying the emissions point as a specific source – rather than as "fugitive" - is not consistent with language used throughout the rest of this draft permit. In other portions of the permit, the tables outlining the emissions points use the word "fugitive" to describe these sorts of emissions.

DEQ needs to clarify whether or not these emissions are fugitive.

If this source is fugitive, DEQ needs to provide a means of reasonably controlling the emissions prior to issuing this Tier I permit. Reliance on the expired Tier II fails to ensure compliance with the relevant portions of IDAPA – since the Tier II seems to endorse that there be no controls. This, DEQ needs to use IDAPA as a default and ensure that reasonable controls are incorporated in this Tier I.

Simplot will likely oppose the inclusion of these controls and Simplot will likely argue that the Tier I can not appropriately be used to promulgate new emissions limits. In this instance, such an argument opposing the use of reasonable controls is wrong. Ensuring compliance with IDAPA trumps outdated emissions limits enshrined in an expired permit. Ensuring compliance with IDAPA should not be construed as the inappropriate imposition of a new requirement.

DEQ Response to Comment No. 6

Please see the response to Comments No. 1 and 3.

The description of control device in Table 10.1 has been changed to "Reasonable control of fugitive emissions." The emission units in the table currently titled "Emissions Point" have been moved to the "Emissions Unit" column and the "Emissions Point" column now states, "Fugitive." Emissions from the gyp stack are considered fugitive emissions because they can not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening (IDAPA 58.01.01.006.43).

Comment No. 7

The emissions limits found in 10.1 (fluoride) seem to fail to recognize that these pollutants are particulate matter. While fluoride needs to be controlled in a manner consistent with the need to protect human health from concerns unique to fluoride, the emissions of fluoride from the Gypsum Stack also need to be controlled consistent with the IDAPA requirements for the control of Particulate Matter. Thus, although DEQ points to the a [sic] old Tier II to justify that there are no controls placed on fluoride emissions from the Gypsum Stack, IDAPA rules requiring that all reasonable controls be used to control PM. Since the fluoride is emitted as PM, DEQ needs to ensure that all reasonable controls be taken to control the emission of fluoride as PM from the gypsum stack. The underlying rational [sic] for this control is the same as the rational [sic] articulated immediately above regarding fugitive PM generically.

Similarly, we have concerns about the fugitive emissions of phosphogypsum in the form of particulate matter. Phosphogypsum is a hazardous material and there is reason to believe that the phosphogypsum present in the gypsum stacks is emitted as fugitive particulate matter. Section 10.3 only deals with the intentional removal of phosphogypsum for commercial, research or

testing purposes. However, because phosphogypsum is also being released as a fugitive, DEQ needs to ensure that the IDAPA rules governing fugitive PM emission are applied to phosphogypsum at the gypsum pile. Again, requiring that Simplot comply with the IDAPA provision regarding the control of fugitive PM (in this case phosphogypsum) should not be viewed as an inappropriate new requirement.

DEQ Response to Comment No. 7

Please see the response to Comment No. 1.

The requirement to reasonably control fugitive emissions from the gypsum stack is not viewed as a new requirement and is in the Tier I operating permit at section 2.1.

Comment No. 8

It has recently come to my attention that DEQ has narrowed the scope of public comments that will be accepted with regards to the draft Simplot Don Siding Tier I permit that is currently out for public comment. We believe that DEQ is acting in error with regards to narrowing the scope of acceptable comments and ask that DEQ reconsider this position and accept any, and all comments, from the public on this matter.

As you know, the Idaho Conservation League sought to intervene in Simplot's appeal of the Tier I permit that DEQ issued to the Don Siding plant in December of 2002. The DEQ Board of Director's was not persuaded by our arguments and did not grant our organization intervening status.

While we were very disappointed that we here [sic] not granted intervening status in this matter, we did take some solace in the fact that we (and the public at large) were assured throughout the course of the intervention hearing that we would be provided with the opportunity to comment an [sic] this permit again in the event that changes were made in Simplot's appeal process.

Now that DEQ has issued a new Tier I for the Simplot Don Siding plant, we are disturbed to learn that DEQ is only accepting comments on the permit conditions that were altered as a result of DEQ's settlement with Simplot. We believe that this narrowing of acceptable comments goes counter to the assurances that we were given when our intervention in the original permit was rejected.

Attached are several documents regarding the June 19, 2003 hearing before the DEQ Board that demonstrate that the it [sic] is inappropriate for DEQ to narrow this current public comment period to a select group of issues.

Attached are the following documents:

1) The transcript of the June 19th, 2003 oral argument. The matter of alternations to the original permit triggering additional public comment is discussed at several points by members of the DEQ board and DEQ's advocate at the Attorney General's office. From this it is clear that if the permit is altered, it will be put back out for public comment. See pages 38, 40, 44, and 45.

2) Simplot case deliberation and vote. This document is a verbatim transcript of a germane comment made by Dr. Cloonan at the final deliberations of the DEQ Board on June 19th, 2003. For some reason the final deliberation and vote were not captured in the official transcript. This document was provided by Debra Cline, she transcribed it from the audio tapes.

3) Minutes from the DEQ Board Meeting June 19th, 2003. See page 4.

4) Order on Intervention, Docket No. 0101-03-07. See page 8.

Each of these documents states a common theme – if changes are made to the original permit, a new permit will be distributed for public comments. At no point in the DEQ hearing is there discussion or approval of limiting public comment only to changes in the original permit. The documents clearly articulate that if there are changes, a new draft permit will be distributed for public comment.

After you have reviewed this matter, I trust that you will agree that the public comment period on the new draft Simplot Don Siding Tier I should be open to comments regarding all parts of the permit.

DEQ Response to Comment No. 8

This Tier I action is processed as a Tier I significant permit modification in accordance with the procedures contained in IDAPA 58.01.01.382 of the Rules. Within these procedures, the permit modification is to be issued in accordance with the requirements for public participation according to Section 364. This includes issuing the draft permit, technical memorandum, application materials and descriptions of the permit action to the public for a minimum period of 30 days. After the close of the comment period, DEQ first considers all comments received relevant to the permit action. DEQ representatives and the Attorney Genereal's Office noted that the public would have the opportunity to comment on any changes made, by way of a permit modification, as a result of the permit appeal. As noted in the Background above, a public comment period was provided for changes made, as a result of a settlement agreement, to the Tier I permit modified on April 5, 2004. This action addresses changes to the cooling tower monitoring, the final issue to the contested case, not the entire permit. Responding to any comments received outside of the permit action is at the discretion of DEQ. Please note that DEQ has provided responses to all comments received during the comment period which were outside the scope of this permit action.

Comments taken from Randy Anderson, e-mail to DEQ, dated 12/21/04

Comment No. 9

Please do not allow any increases in emission output by Simplot in Pocatello. If possible, please reduce emissions.

DEQ Response to Comment No. 9

Please see the first paragraph of the response to Comment No. 1.

The modifications made to the permit with this action do not allow any increases in emissions. The modifications are for increased testing of the cooling tower cells – see permit condition

14.6.1 of the Tier I operating permit.

Comments taken from John Schmidt, Eastern Idaho Group of the Sierra Club, letter to DEQ, dated 1/12/05

Comment No. 10

We feel that the odors emanating from this facility need to be tightly controlled and thus a strong Odor Management plan needs to remain in effect. We are aware that Simplot is seeking to have this removed from the permit and we request that this be kept in the permit and that it remain as strong and as enforceable as possible.

DEQ Response to Comment No. 10

Simplot withdrew this claim from its Petition.

Comment No. 11

Regarding fluorides, we have strong concern about the emissions from the cooling towers and elsewhere at the facility and request that DEQ take actions to ensure that the violations that have been detected over recent months be addressed quickly and forcefully.

DEQ Response to Comment No. 11

DEQ is aware of two instances of performance testing of the cooling towers that failed to demonstrate compliance with fluoride emission limits established in Simplot's Tier I Operating permit. Performance tests conducted on May 18 through 20, 2004 and July 13, 2004 indicated Simplot exceeded fluoride emission limits for Cell 1 of the cooling towers.

DEQ is presently reviewing the testing results to determine the appropriate course of action to address the emission limit exceedance. A copy of the source test report and DEQ's review is available upon request.

In the past five years, DEQ has taken enforcement against Simplot on two occasions to address issues involving fluoride emissions from the facility.

On February 21, 2003, DEQ issued a Notice of Violation to Simplot for exceedances of the fluoride in forage vegetation standard. The violations were resolved through a September 1, 2004 Consent Order between DEQ and Simplot.

On June 25, 2004, DEQ issued a Notice of Violation to Simplot for operating scrubbers outside established flow rate and pressure drop ranges. The scrubbers were intended to control emissions of fluoride and other hazardous air pollutants from several processes that were regulated pursuant to Simplot's Tier I Operating permit and 40 CFR part 63 subpart AA & BB, which required application of the Maximum Available Control Technology for the units. The violations were resolved through a May 23, 2005, Consent Order between DEQ and Simplot.

The February 23, 2003 Notice of Violation, the June 25, 2004 Notice of Violation, the September 1, 2004 Consent Order and the May 23, 2005 Consent Order are available for review upon submitting a Public Records Request to DEQ.

Comment No. 12

We also feel that emissions from the gypsum stack need to be addressed. These emissions can be significant and include radionuclides among other dangerous pollutants. DEQ needs to hold Simplot accountable for what's coming off this area of their facility and implement limits on these emissions.

DEQ Response to Comment No. 12

Please see response to Comment No. 1.

The only existing applicable requirement for radionuclide emissions from the gypsum stack is 40 CFR 61 Subpart R (National Emission Standards for Radon Emissions From Phosphogypsum Stacks). These applicable requirements are included in the Tier I operating permit in Sections 10.3 through 10.8. This regulation requires that phosphogypsum be placed in stacks, limits the removal and use of phosphogypsum and regulates radon 222 emissions to 20 Pico curies per meter squared per second for inactive gypsum stacks.

Currently, the gypsum stacks are active. Therefore, they are only subject to the phosphogypsum placement and removal requirements. However, if the gypsum stacks become classified as inactive, the permittee is then subject to the Radon-222 emissions limits and related requirements contained in 40 CFR 61 Subpart R."

Comments taken from Alan Prouty, Director, Environmental and Regulatory Affairs, J. R. Simplot Company, Don Plant, letter to DEQ, dated 1/13/05

Comment No. 13

This draft permit incorporates the results of a settlement of an appeal concerning the issue of appropriate monitoring methods for the cooling towers. A Tier One (or Title V) permit under the Clean Air Act incorporates existing emission limitations from various sources into one permit. The emission limitation for fluoride at the cooling towers originated in the Tier II operating permit. The original Tier II operating permit also provided that compliance with that emission limitation would be determined by stack testing of 3 of 8 total cells in the cooling towers. The previous draft permit (the one from which Simplot appealed) contained an additional methodology for determining compliance – instead of stack testing, it contained a "mass balance" approach. During the course of settlement discussions on the appeal, DEQ determined that a mass balance approach was not technically feasible, and that increasing the number of cells tested at every instance from 3 cells to 6 cells (out of a total of 8 cells) was the appropriate monitoring method.

Condition 14.9 contains the requirement for the mass balance measurements of particulates and fluorides around the phosphoric acid cooling towers. Simplot's analysis of the mass balance methodology agrees with DEQ's findings that it is not possible technically to achieve the precision needed to derive a mass balance for fluoride or solids at the phosphoric acid plant cooling towers. Essentially, the best accuracy that can be achieved for measuring water flows is +/- 0.25% of the flow rate. Combined with the amount of error and variability in the analytical measurements of the water for fluoride, this equates to an uncertainty of 213 pounds of fluoride per hour per cell. That number dwarfs the permit limit of 4.9 pounds of fluoride per hour per cell.[1] DEQ correctly determined in its technical basis for this draft permit that the mass balance methodology is technically infeasible.

Attached are two documents that provide more detailed information. The first is a document that provides the calculations of the achievable precision for the cooling towers. The second document provides the basis for making precision estimates.

Because DEQ correctly determined that Condition 14.9 has no technical basis, Simplot supports the removal of that requirement from the Tier I Permit.

Conditions 14.6 and 14.8 of the draft permit currently under consideration provide for doubling the amount of source testing at the cooling towers, as compared to the existing Tier II permit which is the underlying requirement. Simplot believes that DEQ appropriately determined in the technical basis for this draft permit that doubling the number of cells testing [sic] in each instance is a reasonable and appropriate resolution that provides additional emissions information for the cooling towers. DEQ should approve this change to the Tier I Permit.

The draft permit is substantially identical to the existing permit (for which an opportunity to comment was also provided) except for the provisions discussed in these comments. For these reasons, we support DEQ's removal of Condition 14.9 (the mass balance approach), and also support the requirement for additional testing at the cooling towers. For all of the reasons stated above, and because testimony at the public hearing did not provide any legitimate basis for undermining DEQ's technical basis for removal of the mass balance method and imposition of increased testing at the cooling towers, Simplot asks that the draft Tier I permit be issued as a final permit.

1. The +/- 0.25% accuracy was the best guarantee that a flow meter manufacturer would provide. To install these meters and make other changes necessary to achieve this "best accuracy" would be approximately $1.1 million. However, even this "best accuracy" equipment would not come close to providing the level of precision needed.

DEQ Response to Comment No. 13

The permit contains the increased monitoring of emissions from the cooling towers and remains unchanged from what was submitted for public comment.

Comments taken from Roger Turner, air quality officer, Shoshone-Bannock Tribes, letter to DEQ, dated 1/13/05

Comment No. 14

In 2004, Simplot failed their compliance testing at the Cooling tower at least twice, and the g III plant twice with respect to Fluoride emissions, a Federal permit requirement. The facility has failed to include important process conditions when performing their tests, which raises questions about the accuracy of their testing. In the case of Fluoride emissions, off-site levels of Fluorides frequently fail the State standards over the years.

DEQ Response to Comment No. 14

See response to Comment No. 11.

On June 2, 2005 DEQ received Simplot's most recent fluoride and particulate matter source test report conducted on the cooling towers. On June 29, 2005 DEQ responded to J.R. Simplot Company in writing requesting that the facility provide additional information to demonstrate that the cooling towers were operating under "worst-case normal operating conditions" as required by IDAPA 58.01.01.157 (Test Methods and Procedures) during the emissions testing. At this time, DEQ is waiting for Simplot's response.

Comment No. 15

Recently, Simplot and IDEQ entered a Settlement Agreement wherein Air Permit conditions for Fluoride testing at the Cooling Towers will be dropped until further negotiations are completed. The Tribal Air Quality Department object to this for several reasons: The Settlement Agreement caused change in a Federally Required permit condition, but yet they did not allow the participation by the Tribes, EPA, or other stakeholders in their Agreement. The changes proposed in the draft permit actually result in a relaxation of the Fluoride monitoring requirement, which will likely result in elevated emissions from the cooling towers. This to the history of Fluoride performance test failures and off-site impacts from their plant. Now is not the time for IDEQ to relax their standards.

DEQ Response to Comment No. 15

The federally enforceable permit condition for fluoride testing on the cooling towers is from a December 13, 1999 Tier II operating permit issued to Simplot. This permit required testing for fluoride and PM_{10} three times each year.

In issuing the original Tier I operating permit for the Simplot facility, DEQ sought to enhance this existing periodic monitoring requirement by including an ongoing mass balance monitoring and reporting regime to ensure compliance with emission limits. A Tier I operating permit was issued December 24, 2002 that included this enhanced monitoring.

Simplot contested the issuance of the December 24, 2002 Tier I operating permit that included the enhanced monitoring. J.R. Simplot contested the Tier I permit issuance, in part, on the basis that inherent inaccuracies in the mass balance approach could not demonstrate compliance or noncompliance with emissions limits. DEQ reviewed the technical merits of the argument and agreed that the mass balance approach could not be used to ensure compliance with pound per hour emissions limits. DEQ's technical memorandum on this subject is included with the statement of basis that supports this proposed Tier I operating permit and is available upon submitting a public information request to the Department.

In settling the contested issues associated with the cooling tower monitoring included in the Tier I operating permit J.R. Simplot agreed to increase cooling tower emissions testing frequencies above what was required in the underlying applicable requirement (federally enforceable condition) contained in the December 13, 1999 Tier II operating permit. This agreement is an applicable requirement by definition and is contained in the draft Tier I operating permit that was submitted for public comment. This permit condition requires six fluoride emissions tests in 2005 where the original federally enforceable condition required three fluoride emissions tests. So there is an increase in source testing frequency for the cooling towers. There is not a relaxing of standards.

In accordance with IDAPA 58.01.01.364, the public comment period and public hearing were held for public review and comments on the change to the permit prior to final issuance. This gives the Tribes and other stakeholders an opportunity to have input regarding the incorporation of the settlement agreement into the permit. In accordance with IDAPA 58.01.01.366, the EPA will have 45 days to review and comment on the changes in the proposed permit.

Comment No. 16

Fluorides represent approximately 3% of the ore content. Where does the Fluoride go? Simplot should be required to show the actual mass balance and fate of Fluorides and other Hazardous Air Pollutants (HAPs) from their plant, particularly when so much of these constituents are potentially released into the airshed. The combination of frequent violations of permit-required stack emission limits with frequent violations of the ambient fluoride standards, represents a violation of Simplot's permit. And a violation of IDAPA 5.01.01.161 [sic].

DEQ Response to Comment No. 16

The Tier I operating permit contains all applicable requirements that apply to fluoride emissions and hazardous air pollutant emissions. These applicable requirements include fluoride emission rate limits and national emission standards for hazardous air pollutants.

Simplot is required to submit an application to renew their Tier II operating permit. In processing a Tier II permit, DEQ has the ability to establish new requirements when necessary to assure compliance with state and federal air regulations, including the ambient standards.

Comment No. 17

The Tribes recommend that IDEQ require Simplot to check the impacts, including radionuclides, from fugitive dust from the Gypsum Stack. Fugitive dust has been observed off of these large stacks at the plant.

DEQ Response to Comment No. 17

Please see response to Comments No. 1 and No. 12.

Comment No. 18

The Tribes request that IDEQ re-evaluate potential applicability of area sources at Simplot that may be subject to NESHAP/MACT standards, particularly heavy metals. Clean Air Act Section 112(b) requires control of the following Hazardous Air Pollutants (HAPs): Hydrogen Sulfide – Also arsenic, cadmium, chromium, listed under this section. As such is Simplot required to sample/report under applicable under 40 CFR 63? IDEQ should carefully review these constituents and determine whether additional permit requirements are applicable. Many of these constituents are elevated in phosphate ore, and they may be released in the airshed.

DEQ Response to Comment No. 18

Please see the first paragraph of the response to Comment No. 1.

The Tier I operating permit includes all applicable requirements that apply to the Simplot facility. Regarding HAPs, the facility is subject to 40 CFR 63 Subpart AA, Phosphoric Acid Manufacturing Plants and Subpart BB, Phosphate Fertilizer Production Plants. DEQ is unaware of any other federal emission standards specific to hydrogen sulfide, arsenic, cadmium, and chromium or any other hazardous air pollutants within the Code of Federal Regulations for this facility.

Comment No. 19

Idaho air quality Rules state that: Simplot's permit at Section 2.5: No person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable.

Comment: The Shoshone-Bannock Tribes support the above-referenced permit requirement and recommend that it remain in the permit conditions, without change.

Simplot is not, in recent years, adhering to this requirement, is not taking corrective action to meet this permit condition, and IDEQ should take enforcement action.

Any change in the Odor section of the permit should result in a re-opening of the permit, with a public hearing and public comment period.

DEQ Response to Comment No. 19

Please see response to Comments No. 1 and 10.

Comment No. 20

Draft changes to Permit is a result of Settlement Agreement between Simplot and IDEQ. (Reference page 7 of draft permit) indicate that the following permit conditions were changed: 2.21, 14.6.1, 14.8, and 14.9. Also, general provisions at 21.3.2, 21.3.3, and 24 were updated.

Note that the Settlement, page 2. "The parties (IDEQ and Simplot) also note that IDEQ intends to continue to evaluate some form of additional or different periodic monitoring for the cooling towers, and plans to solicit Simplot's participation in this effort." The settlement agreement makes no mention of soliciting EPA's participation in this settlement agreement, or EPA's role in review of the permit even though the changes agreed upon in the settlement include changes in the Federally applicable MACT standard, which requires fluoride monitoring and compliance from the cooling tower and requires that the feed rate to the tower cells be recorded. Further, the settlement makes no mention of coordinating or meeting with the Shoshone-Bannock Tribes, and "affected state", situated within 50 miles of the source, and whose air quality may be affected by Simplot's emissions, as defined in the Federal Title V permit)reference 505 of the Clean Air Act), or [sic]

Simplot has recently requested that the permit conditions 14.9 through 14.11 requirements deleted from their permit. Given the pattern of violations of stack tests, and frequent violations of the State Fluoride standards, IDEQ should make the source tests more frequent, and the emission limits more stringent in order to meet the requirements State Regulations.

DEQ Response to Comment No. 20

DEQ is continuing its efforts to determine appropriate monitoring for fluoride emissions from the cooling towers. See response to comment No. 14.

DEQ agrees that source testing alone cannot assure ongoing compliance with the emission standards at the cooling towers. DEQ intends to address inadequate monitoring within the Tier II permitting program and will readdress the cooling tower fluoride monitoring requirements while processing that permit. Simplot will participate in developing any new monitoring for fluorides from the cooling towers during the process of developing the renewed Tier II operating permit. The renewed Tier II operating permit will be made available for public comment in accordance with the rules.

The settlement agreement in no way affects any MACT standards.

The settlement agreement provisions have been incorporated into the Tier I operating permit and that permit has been submitted for public comment as required by the procedures for issuing Tier I operating permits. The permit was also submitted to all affected states, including the Shoshone-Bannock Tribes as required by the rules.

Also see response to Comments No. 11 and No. 14.

Comment No. 21

Permit condition: 14.6.1: The change in this section drops a requirement that Simplot provide monitoring and Record-keeping: This section indicates that Simplot will be allowed to revise their own PM-10 emission limits based on earlier tests. The Tribes object to the premise that Simplot be allowed to set their own emission standard, and we recommend that any new emission limits be sent out for Tribal and public review and comment.

DEQ Response to Comment No. 21

Permit Condition 14.6.1 states, in part, "*No later than September 30, 2005, Simplot shall submit a permit application to revise the PM_{10} emissions limits to reflect the results of the Method 5 and 202 tests. The permit application shall contain justification for each emission limit proposed. Once DEQ issues a permit with revised PM_{10} emissions limits, compliance with Permit Condition 14.2 shall be determined by annual source testing using Methods 5 and 202 on two of the cooling tower cells in each of the three reclaim cooling towers. The annual source test shall be conducted as specified in Permit Condition 14.8.*"

Simplot will not be able to set their own emissions limits. This permit condition requires the facility submit a permit application in order to modify the PM_{10} emissions limits. The permitting process will be done in accordance with the Rules for either a permit to construct or a Tier II operating permit both of these permit processes require an opportunity for public comment on the draft permit.

Comment No. 22

14.8 – The draft permit requires additional PM-10 testing of the cooling tower cells. The Tribes support this section.

14.9 – This entire section- Total fluorides and PM/PM10 Monitoring has been dropped from the draft permit. This is [sic] includes the [sic] deleting the requirement for Simplot to monitor the flows to the cooling tower – a fundamentally basic monitoring parameter in any requirement to determine PM and fluoride emissions from this source. This is the same source that has failed the emission limits for fluoride, in 2003. The message that is given by this section is that if Simplot fails the compliance test is for the regulator to drop the requirement for them to test for this toxic constituent. Ironically, the ambient fluoride in the area in most of the recent years, fails the forage test: That is, the ambient fluoride level exceeds the State standards.

Simplot violated their present air quality permit by not complying with section 14.10, which states: The permittee shall identify the entire flow path of all scrubber output and submit it to the Department on or before the issuance of this permit." This condition has not been complied with in the past permit, and Simplot continues to violate this permit condition. IDEQ should demand compliance from Simplot on this issue, and take appropriate enforcement actions, and deny any request for relaxation of the monitoring requirements at this facility.

Based on this permit deficit, alone, the IDEQ should deny the existing draft permit. He [sic] permit should go out for public comment only after this data is included.

DEQ Response to Comment No. 22

Regarding fluoride and particulate matter monitoring at the cooling towers please see the response to Comment No. 15.

For issues related to Simplot's compliance with and DEQ's enforcement of fluoride emission limits and standards, see responses to Comment No. 11.

Simplot has submitted a flow diagram in accordance with Section 14.10 of the Tier I operating permit and is therefore in compliance with this permit condition.

Comment No. 23

MACT standard: Simplot, pursuant to Section 15.12 of their air quality permit, is required to comply with 40 CFR part 63.606, 63.606 Performance tests and compliance provisions. We have reviewed the submitted reports by Simplot for the above referenced permit requirement and believe that Simplot failed to include all the required information, including feed-rates, and other parameters, that are necessary to determine compliance with this Federal permit requirement. We request that IDEQ staff carefully review the documents submitted by Simplot, and make a determination of completeness. (This should include submittals dated Aug., 13, 2004 (Cooling Towers), December 1, 2004, (Granulation III) Sept., 15, 2004 (Cooling Towers), as well as others during this current permit period.

DEQ Response to Comment No. 23

Please see the first paragraph of the response to Comment No. 1.

The cooling towers and Granulation III are not subject to any 40 CFR 63 testing requirements. Emissions testing on the cooling tower and Granulation III are subject to the state of Idaho's testing requirements in accordance with IDAPA 58.01.01.157.

DEQ is carefully reviewing emission test reports that are submitted. See response to Comment No. 14.

Comment No. 24

The superphosphoric acid plant is allowed to release fluorides without any control device with respect to fluoride emissions. The IDEQ should re-visit this source and consider requiring the installation of a control device at this source. The Permit-to-Construct application by Simplot used as a basis of their calculated fluoride emissions a content of 0.01 pound of FL per Ton of P2O5, which is he [sic] same as 5 parts per million. Since fluorides an [sic] represent approximately 3% of the ore content, the estimates of Fluoride emissions by Simplot needs to be reevaluated by IDEQ. The Tribes recommend that IDEQ enlist the engineering support of EPA or an independent engineering group to evaluate the emissions from the Superphosphoric acid plant, and other sources at the facility. The MACT Standard or [sic] this plant (40 CFR Part 63.602) is a requirement of this permit, and requires that the Total Fluorides emitted from any plant not exceed 0.2 lbs/ton.

DEQ Response to Comment No. 24

Please see the first paragraph of the response to Comment No. 1.

Simplot is using a scrubber to comply with the existing superphosphoric acid plant applicable fluoride limit of 0.01 pounds per ton of equivalent P_2O_5 feed. The permit also has periodic monitoring to assure compliance in accordance with 40 CFR 63.

The Tier I operating permit has all applicable requirements that apply to the superphosphoric acid plant, including periodic monitoring to assure compliance as specified in 40 CFR 63. Simplot is required to submit a Tier II permit renewal application. During processing of the Tier II permit DEQ has the ability to review the sufficiency of existing monitoring and may establish new applicable requirements.

Comment No. 25

In reviewing the reports submitted to IDEQ by Simplot, it appears that they have failed to adhere to the requirements of 40 CFR 63.626 Performance tests and compliance provisions, among other requirements, wherein they have not included the full calculations, using feed rates for the total fluoride emissions. The IDEQ should review Simplot's compliance status on these performance tests, and take appropriate enforcement action.

A Notice of Violation was issued by IDEQ to Simplot issued for failure to MACT compliance tests, show pressure drop data as part of their annual MACT test.

DEQ Response to Comment No. 25

Please see the first paragraph of the response to Comment No. 1 and the response to Comment No. 11.

Comment No. 26

Granulation plant tests: Oct. '04, fluoride test failed during PM test. Simplot carried out a re-test on Nov., 1, '04, Re-test failed the fluoride test again. Another subsequent evaluation by Simplot showed that there may have been a higher feed acid quantity that may have contributed to the failure of the test. Simplot indicated that they were planning to re-test in week of December 6. '04 (reference. Dec., 1 communication) Results...? Has IDEQ considered a permit condition on the Granulation III plant to ensure the feed acid rate is a condition in the permit? This should be implemented.

DEQ Response to Comment No. 26

Please see the first paragraph of the response to Comment No. 1.

There was a retest on December 9, 2004. The test passed and was approved by DEQ.

See also the response to Comment No. 24 regarding the issuance of a Tier II operating permit.

Comment No. 27

Simplot has failed to comply with 40 CFR Section 63.602, Standards for Existing Sources. They have not tested for methyl isobutyl ketone. Simplot has failed to follow the federal requirements for monitoring and reporting their mass flow of phosphorous-bearing feed material to the process. (As required under 63.605. Simplot has not maintained a daily record of the equivalent P2O5 feed, nor have they reported this information during their source tests, as required under these sections.

DEQ Response to Comment No. 27

Please see the first paragraph of the response to Comment No. 1.

Source testing for methyl isobutyl ketone is required by 40 CFR Section 63.602 only if the facility uses a hazardous air pollutant (HAP) as a solvent in producing purified phosphoric acid. The Department is not aware that J.R. Simplot Company uses a HAP as a solvent to produce phosphoric acid.

J.R. Simplot Company is required to monitor the mass flow of phosphorus-bearing feed material (Permit Section 12.8). J.R. Simplot Company is monitoring the mass flow of phosphorus-bearing feed material as required by the permit including during sources tests. J.R. Simplot Company did submit a source report that did not contain the mass flow of phosphorus-bearing feed material. The Department requested that information during the review of the source test report and was given the information.

Comment No. 28

July 13, '04 Simplot fails cell no. 1 for fluoride test.(A permit requirement.) In correspondence from Simplot (dated September 15, '04) Simplot re-ran the source test. They indicated that higher fan speed contributed to the earlier exceedence of the fluoride test. They submitted that they could pass the fluoride tests by reducing the fan speed. Question: Did IDEQ staff observe the source testing? Did they verify the fan speed?

Comment: Wouldn't it be appropriate to make the reduced fan speed a condition of a revised permit (otherwise Simplot could adjust the fan speed just during the times that they were being tested)?

DEQ Response to Comment No. 28

DEQ did not observe the July 13, 2004 emissions testing. However, DEQ has observed source testing of the cooling towers and is verifying the fan speed during the performance tests. See response to Comment No. 14.

Simplot is required to obtain a renewed Tier II operating permit. In issuing a Tier II operating permit DEQ may establish new monitoring or operating requirements restrictions, which may include fan speed.

Comment No. 29

Request that IDEQ review and consider comments on the entire Air Quality Permit of Simplot:

Comment: IDEQ should take all comments under consideration that may improve the operating permit of Simplot. It would be unfair if IDEQ entered into a settlement agreement that, if finalized, would change critical emissions at the Simplot plant, without re-opening the entire permit for comment and subsequent changes.

DEQ Response to Comment No. 29

Please see the response to Comments No. 1 and No. 8.

This proposed permit action is for a modification to the Tier I operating permit, and is issued based on the rules and regulations that apply to Tier I operating permits.

Neither the settlement agreement nor the proposed Tier I operating permit has changed emissions limits. DEQ invites comment on any "change," or modification to the Tier I permit.

Comment No. 30

Timely permit requirements: IDAPA 58.01.01.368 – Expiration of Preceding Permits
The Air Permit for Simplot, may have expired recently, pursuant to the above-referenced requirement. The Tribes request that IDEQ review the Simplot permit application dates and make a determination in this regard for the record.

DEQ Response to Comment No. 30

The IDAPA 58.01.01.368 reference that you provided relates only to Tier I operating permits. The Tier I operating permit expires on December 24, 2007. J.R. Simplot must submit an application to renew the Tier I operating permit by June 24, 2007.

A Tier II operating permit expired on June 29, 2000. J.R. Simplot Company is required to submit an application to renew that permit. See response to Comment No. 3.

Comment No. 31

Ambient Fluoride Testing
Comment: Since ambient fluoride testing is part of the permit condition for the Simplot Don plant, specifically permit condition 2.24, any ambient testing should be open to public review and comment. Simplot, according to IDEQ records is in the process of drafting a new ambient monitoring plan. However, this plan has not been finalized. Consequently, the permit should re-opened for public comment when the IDEQ is ready to finalize this document.

DEQ Response to Comment No. 31

Please see the first paragraph of the response to Comment No. 1.

Permit condition 2.24 was not correctly identified as a state only permit condition in the draft Tier I operating permit that was issued for public comment. This has been corrected in the proposed permit that will go to EPA for their 45 day review prior to issuance.

The ambient fluoride standard in the Rules for the Control of Air Pollution (IDAPA 58.01.01.577.06) is not an EPA approved standard in the State of Idaho's State Implementation Plan. Since it is not part of the EPA approved program it is a state only regulation. State only regulations are not applicable requirements (IDAPA 58.01.01.008.03) for Tier I permitting purposes and can only be included in the Tier I operating permit if they are clearly identified as state only permit conditions.

The Tier I operating permit will not be reopened to include the ambient fluoride monitoring plan because it is not an applicable requirement for Tier I permitting purposes. However, the ambient fluoride monitoring plan that is currently being negotiated in between DEQ and J.R. Simplot Company will be formalized in a consent order and included in the renewed Tier II operating permit that will be drafted for public comment.

Comment No. 32

Simplot has recently requested a series of minor permit modifications to their Permit. Most of these request for a relaxation of the testing, monitoring, and record keeping from that of their existing permit. These permit modifications, when taken as a whole, actually represent a major modification to their permit, and consequently IDEQ should require that these be packaged and sent out for public comment. I counted 13 permit chanes [sic] in this request! Simplot's request to use AP-42 calculations rather than direct testing represents a relaxation of their testing requirements. It is obvious that such a large number of changes, significantly change the entire permit of Simplot, and these modifications should be sent out for public and EPA review. Secondly, given the pattern of violations related to this source, these minor permit changes should all be denied by IDEQ, if they result in back-sliding of emission limits, reduced monitoring, record keeping, or reporting.

DEQ Response to Comment No. 32

Please see the first paragraph of the response to Comment No. 1.

All of J. R. Simplot Company's proposed permit changes have been, and will continue to be processed in accordance with the *Rules for the Control of Air Pollution in Idaho* (Rules), including public comment periods and EPA review where required. It should be noted that this permit action to include the cooling tower settlement agreement has been processed as a significant permit modification in accordance with the Rules.

Comment No. 33

The Simplot plant near the Fort Hall Reservation has shown a recent pattern of frequent violations in their source tests that may result in increasing levels of pollutants in the ambient air. In the case of Fluorides, not only have there been violations and deficits in the source testing results at various sources at Simplot, in most years there are also violations of the State Fluoride standard in the area around Simplot. Simplot should not now be rewarded for their pattern of violations, by giving them a relaxed fluoride testing system at the cooling towers.

We recommend that an independent engineering firm be retained, with the cost born by Simplot to evaluate flow meters that may be accurately employed at the cooling towers. Further, we recommend that the recent changes requested by Simplot to drop the requirement to obtain the cooling tower flows, be denied. It should be noted that it is a Federal standard for Simplot to gather the flows to the cooling tower, and EPA should also be consulted about these proposed changes to the Simplot permit.

DEQ Response to Comment No. 33

Regarding source test violations please see the response to Comment No. 11. Regarding cooling tower monitoring please see response to Comment No. 15.

The EPA will be provided a 45-day comment period on this permit in accordance with IDAPA 58.01.01.366.

Comment No. 34

Critical process data is often missing from Simplot's monitoring and compliance test results, that are submitted to IDEQ. The Agency should carefully review these submittals for their compliance with the terms of their permit.

DEQ Response to Comment No. 34

These test results are carefully reviewed and evaluated. As an example see the response to Comment No. 14.

Comments taken from Ted Olsen, GM writer, e-mail to DEQ, dated 12/28/04

Comment No. 35

Dan, I've looked at all the documents and still would like to know for Green Markets what Simplot is building at its Pocatello phosphate plant that needs an air quality permit. Also puzzled over the reference to a settlement agreement. Tried to get some help from the company but sometimes they're reluctant to talk Hope you can help GM, if you don't know, is the weekly fertilizer business and markets newsletter Thanks and Happy New Year Ted Olsen GM writer 801 619-2113

DEQ Response to Comment No. 35

This Tier I operating permit action is not to permit new construction at the J. R. Simplot, Don Plant. This permit is simply to include existing applicable requirements into the Tier I operating permit.

Regarding the appeal, the Tier I operating permit was issued, then appealed, by the J. R. Simplot Company. A settlement agreement between DEQ and the J. R. Simplot Company resulted made it necessary for changes to be incorporated into the Tier I permit. This permit action is to incorporate changes to the fluoride emissions testing requirements and to eliminate a fluoride emissions monitoring strategy that was ineffective (see response to Comment No. 15).

Comments from Hearing

Comments taken from Beatrice Brailsford, e-mail to DEQ, in Hearing package, dated 1/13/05

Comment No. 36

Thank you for conducting the public meeting/hearing on January 12. I share the substantive concerns in the oral comments you heard at the meeting and I support the suggestions made there.

I strongly encourage IDEQ to continue to seek ways to effectively and accurately monitor fluoride emissions from the facility. In this regard I note that both the regulators and the facility operators asserted that fluoride is unquestionably released to the gypsum pile, though neither knew how much, no doubt because no samples have been taken. Data-free certainty bolsters my confidence in the scientific method and in its use in the industrial arena.

I strongly encourage IDEQ to continue to seek ways to improve public dialogue about environmental conditions in our community and about the State's regulatory activities. I very much appreciated the give-and-take in the January 12 meeting. It was factually informative and gave a sense of both legitimate community concerns and agency challenges. As I said at the meeting, the tendency is to air important issues in the pre-hearing session that then do not make it into the official record. I've often seen this happen and don't know what the solution is. Some suggestions: Don't think of (or bill) the opening session as a question-and-answer period. That implies a one-way flow of information; I am certain the exchange of views I saw last night is more helpful all around. Ask participants to identify themselves and record the entire evening as part of the official record with the responsiveness obligations that entails. Ask participants to identify themselves when they want a question or comment included in the official record with the responsiveness obligations that entails. I noticed that the attorney was taking notes. When important guidance comes from the public, even outside the formal process, act on it.

DEQ Response to Comment No. 36

Regarding fluoride monitoring, see response to Comment No. 12 and No. 20.

DEQ received requests from the public to hold an informal information meeting prior to the formal hearing. DEQ granted that request. The public comment period and the public hearing are the mechanisms prescribed by the rules for DEQ to receive public comment on a draft permit.

DEQ does not ignore comments provided during the informal informational meeting even though they are not part of the formal record of comments provided.

Comments taken from the testimony of Nancy Eschief Murillo, chairwoman for the Fort Hall Business Council, Shoshone-Bannock Tribes, Fort Hall Indian Reservation and Exhibit No. A

Comment No. 37

The Shoshone-Bannock Tribes request the Department of Environmental Quality to amend the current draft of the J. R. Simplot Title 1 Operating Permit to include continuous monitoring of the liquids in the basin of the Cooling Tower Cells.

DEQ Response to Comment No. 37

Please see response to Comment No. 15.

J.R. Simplot Company is required to obtain a renewed Tier II operating permit. In issuing a Tier II operating permit DEQ may establish new monitoring or operating requirements such as water flow rate to the cooling towers if this proves to have technical merit.

Comment No. 38

In addition, the Tribes request EPA to provide oversight and ensure coordination between the DEQ Air Program and the Superfund Program to ensure risks from fluoride contamination are not increasing.

DEQ Response to Comment No. 38

Please see the first paragraph of the response to Comment No. 1 and the response to Comment No. 40.

Comment No. 39

The Shoshone-Bannock Tribes are a federally recognized sovereign tribal government, organized under a constitution and by-laws from 1936. The Tribal government maintains sovereign jurisdiction within the exterior boundaries of the Fort Hall Indian Reservation which was set aside, pursuant to the Fort Bridger Treaty of 1968. As a sovereign nation, the Shoshone-Bannock Tribes have not been formally consulted. Please provide a government-to-government consultation with the Shoshone-Bannock Tribes. As you know, the boundaries are just adjacent right to Simplot, and so the effects are affecting our lands and our people.

DEQ Response to Comment No. 39

IDAPA 58.01.01.364 regulates public notices, comments and hearings. These regulations require notification of the public, the applicant, and affected states. The Shoshone-Bannock Tribes meets the definition of *affected states* per IDAPA 58.01.01.008.01.

As required IDEQ by the rules IDEQ sent the Shoshone-Bannock Tribe a copy of the draft Tier I operating permit on October 15, 2004 because they are an affected state by definition. Representatives of the Tribe sent comments as listed in this "Response to Public Comments" document and also were present and testified in the public hearing which was held on January 12, 2005.

Comment No. 40

Who: J. R. Simplot Tier 1 Operating Permit – Air
What: Tier 1 Operating Permit or sometimes called Title V Permits; serves to "house" all other air permits, consent decrees, et cetera, into one document; References other permits and their conditions but cannot impose new or substantial requirements.
Importance to Tribal Land – CERCLA/RCRA Standpoint.

The Record of Decision, or ROD, for the Eastern Michaud Flats Superfund site indicated potential risks from fluoride to sage grouse, horned lark, red-tailed hawk, and coyote in sagebrush steppe habitat. The ROD called a Monitoring Plan including Quality Assurance Program Plan and a sampling plan to be submitted for EPA approval during the remediation design. An evaluation of monitoring data will be conducted annually to determine the fluoride levels and spatial and temporal trends in the environment. If levels which are measured indicate a risk may exist, further evaluation will occur followed by source control or other actions, if necessary. The EPA Superfund Program is doing nothing to address this issue. Simplot is an operating facility, so Superfund will defer responsibilities to the proper regulatory program to handle; in this case the State DEQ Air Quality Program.

The State Department of Environmental Quality has an ambient air quality standard for fluoride. There is no federal standard. The standard reads: Fluorides/Primary and secondary quality standards are those ambient concentrations in the ambient air which result in a total fluoride content in vegetation used for feed and forage of no more than: Annual standard – 40 ppm, annual arithmetic mean; Bimonthly standard – 60 parts per million, monthly concentration for two consecutive months.

Simplot is conducting some fluoride monitoring to comply with terms in their Tier 2 operating permit. They exceeded the fluoride standard and were issued violations for 1999, 2002, and 2003.

No sampling is occurring on the reservation, the Fort Hall Indian Reservation. The Tribes request EPA to step in and coordinate efforts between the Superfund and Air Programs to ensure that Tribal lands are not being impacted.

The Shoshone-Bannock Tribes have expressed concern regarding fluoride contamination since early 1995. These concerns surround the buffalo herds we have, cattle, horses, and other livestock grazing in the Fort Hall Bottoms.

DEQ Response to Comment No. 40

Please see the first paragraph of the response to Comment No. 1.

As the commentor indicated the ambient fluoride standard in the Rules for the Control of Air Pollution (IDAPA 58.01.01.577.06) is not an EPA approved standard in Idaho's State Implementation Plan. Since it is not part of the EPA approved implementation plan, or part of the Clean Air Act, it is a state only regulation. Since there is not an EPA ambient fluoride standard EPA does not have regulatory authority for this state only regulation.

Two important points should be made regarding the Tier I permitting process.

1) State only regulations are not applicable requirements (IDAPA 58.01.01.008.03) for Tier I permitting purposes and can only be included in the Tier I operating permit if they are clearly identified as state only permit conditions.

2) Ambient air quality standards , even when approved by EPA as part of the State Implementation Plan, such as those for particulate matter and sulfur dioxide, are not applicable requirements within the Tier I permit program. Consequently, the Tier I permitting process does not include demonstrating compliance with any ambient standard.

These clarifications are necessary so that the Tier I permitting process is understood, not to ignore the ambient standards. In fact DEQ has entered into a consent agreement with J.R. Simplot Company regarding monitoring of ambient fluoride concentrations and J.R. Simplot is required to submit an application to renew their Tier II operating permit. In processing a Tier II permit DEQ has the ability to establish new requirements when necessary to assure compliance with state air regulations, including the ambient standards.

Comments taken from the testimony of Roger Turner, Shoshone-Bannock Tribes Air Quality Department

Comment No. 41

The Shoshone-Bannock Tribes are an affected state with respect the permit issues of Simplot. I just wanted to thank and indicate that the sense that I have of IDEQ's difficulty with these permits – I read the Simplot comments on the permit of a year ago, and it sounds like a junior kid, as far as point after point after point did they request reduction in the requirement for testing, for recordkeeping, and just a litany of requests over the years to reduce their requirements for testing and for emission limitations. So I appreciate what IDEQ is up against with an entity like Simplot.

In 2004, Simplot failed their compliance testing of the cooling tower at least twice and the granulation No. 3 plant twice with respect to fluoride emissions. The facilities failed to include important process conditions when performing their tests, which raises questions about the accuracy of their testing.

In the cases of fluoride emissions, off-site levels of fluorides frequently fail the state standards over the past years. And Simplot staff are frequently requesting more relaxed testing requirements of their plant and reduced recordkeeping requirements at their facility.

Recently, Simplot and IDEQ entered a settlement agreement wherein the air permit conditions for fluoride testing at the cooling towers will be dropped until further negotiations are completed. The Tribal Air Quality Department objects to this for several reasons.

First of all, will IDEQ sincerely consider Tribal comments after they've already signed a separate consent agreement?

The settlement agreement causes a change in the federal requirement condition, but yet they did not allow participation by the tribes, EPA, or other stakeholders in this agreement.

The changes proposed in this draft permit actually result in a relaxation of fluoride monitoring requirements, which will likely result in elevated emissions from the cooling towers. This direction is counter to the history of fluoride performance test failures and off-site impacts from their plant. Now is not the time for IDEQ to relax their standards.

DEQ Response to Comment No. 41

DEQ considers all comments received during a public comment periods and public hearings. The settlement agreements acknowledge the public would have an opportunity to comment on the proposed revisions.

Regarding the cooling tower fluoride monitoring issues, including the settlement agreement, see response to Comment No. 15. Regarding cooling tower fluoride emissions testing see the response to Comment No. 11. Regarding granulation 3 emissions testing for fluoride see the response to Comment No. 26. Regarding the ambient fluoride standard see the response to Comment No. 40.

Comment No. 42

Fluoride represents 3 percent of the ore content. Where does the fluoride go?

Simplot should be required to show the actual mass balance of fluorides and other hazardous air pollutants from their plant, particularly when so much of these constituents are potentially released into the air shed.

DEQ Response to Comment No. 42

Please see the first paragraph of the response to Comment No. 1 and Comment No. 16.

Comment No. 43

The Tribes recommend that IDEQ require Simplot to check the impacts, including radionuclides, from the fugitive dust off of gypsum stacks. This should include fluorides. Fugitive dust has been observed off these large stacks at the plant.

DEQ Response to Comment No. 43

See response to Comments No. 1, No. 12 and No. 40.

Comment No. 44

The Tribes request that IDEQ re-evaluate potential applicability of area sources at Simplot that may be subject to the NESHAP (corrected from transcript) or MACT (corrected from transcript) standards; particularly, heavy metals.

The Clean Air Act, Section 112(b) requires control of the following air pollutants: Hydrogen sulfide. This is also part of – reduced sulfides are part of the odor problems at Simplot. Arsenic, cadmium, chromium are listed under this section.

As such, is Simplot required to sample or report under the applicable requirements of 40 CFR 63?

IDEQ should carefully review these constituents and determine whether additional further permit requirements are applicable. Many of these are elevating constituents of phosphate ore, and they may be released in the air shed.

The Tribes also recommend you carefully review the new source performance standards, including the recently constructed sulfuric acid plant at Simplot. And this stack source may be subject to new performance standards.

DEQ Response to Comment No. 44

Please see the first paragraph of the response to Comment No. 1.

The draft Tier I operating permit contains all applicable requirements that apply to the J.R. Simplot facility, including those for hazardous air pollutants regulated by 40 CFR 63.

Comment No. 45

Odors. The Idaho Air Quality Rules state that no person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to the cause air pollution.

The permittee shall maintain records of all odorous complaints. This is in the permit. And if the complaints have merit, the permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include any possibility of corrective action by Simplot.

Has Simplot met this provision? I don't think so. I just encourage IDEQ to – I understand that Simplot has asked the odors be deleted from their permit, and I just would support IDEQ for keeping those in there and continuing their compliance on that.

DEQ Response to Comment No. 45

Please see the first paragraph of the response to Comment No. 1 and response to Comment No. 10.

DEQ has reviewed J.R. Simplot Company's most recent annual compliance certification and J.R. Simplot Company has certified that they are maintaining records of all odor complaints and are taking appropriate corrective action when the complaint has merit.

Comment No. 46

I have some more information that I wanted to give out that is written, but I just wanted to state that I think it's wrong for the fact that IDEQ, in their recent settlement agreement, is quoted as the parties, that is, IDEQ and Simplot.

I'd also note that IDEQ intends to continue to evaluate some form of additional or different periodic monitoring for the cooling towers and plans to solicit Simplot's participation in this effort. This makes no effort as to what is EPA's participation, nor does it indicate any participation for this plan with the Tribes, no – even though some changes may affect the MACT standard, a federally applicable standard, which requires fluoride monitoring and compliance of the cooling towers, and requires that the feed rate of these towers also be recorded.

Simplot has recently requested that permit conditions 14.9 through 14.11 be deleted from their permit. These are related to fluoride emissions. Given the pattern of violations of stack tests, violations to the state fluoride standards, IDEQ should make these source tests more frequent and the emissions more stringent in order to meet the requirements of state regulations.

DEQ Response to Comment No. 46

See response to Comment No. 20 regarding continuing to evaluate cooling towers emissions monitoring, See also response to Comment No. 15.

There are no MACT fluoride monitoring or feed rate monitoring requirements for the cooling towers.

Comment No. 47

The other thing I just want to mention is a couple points on stack testing. There was a sulfuric acid plant test that was done with respect to fluorides, and part of that is the MACT standard that they do not exceed 0.2 pounds per ton. And it appears to me that IDEQ – or Simplot has failed to submit to IDEQ the requirements of 40 CFR 63.626 with respect to performance tests, and they have not included all of the calculations using feed rates for the total fluoride emissions. And IDEQ should review Simplot's compliance status on these performance tests.

The same is true of granulation 3 tests. They failed in October '04, during a PM test for fluoride, retested in November, and the retest failed again. They were allowed to retest it again. It's planned to be tested in December of '04. I haven't seen the results of that retest. But one of the things that Simplot has requested is that there was a possible problem with the feed out rate on that particular test and that that was a problem.

I guess my point to IDEQ is perhaps if the feed rate is something that hurts or hiders Simplot in their compliance of that test, perhaps the fed rate condition should be part of the permit.

A similar thing on the cooling tower test. In July, Simplot failed the fluoride test in the cooling tower. Then they re-ran the test, and they indicated that a higher fan speed contributed to the earlier exceedance.

Well, I guess my question is, does IDEQ observe these source tests and conditions that are ongoing at the time of the test? And, again, should fan speed be a condition of their permit if they're having trouble meeting the standard with a certain fan speed?

I guess just one final thing is on the fluoride and the ambient fluoride testing. It is a part of the permit conditions for the Simplot Don Plant, specifically under condition 2.24. The ambient testing should be open to the public review and comments as part of that Simplot permit.

And now I understand that there's a new ambient fluoride plan, but this plan – I don't think it's been finalized, but I guess I would just say that this permit perhaps should be reopened when the ambient fluoride plan has been finalized and when the cooling tower retest for feed rates is finalized.

And I don't think that that should take – the re-evaluation for the cooling tower I don't think should be allowed to take longer than a year. I think that Simplot should be required to bring that back to the public and to DEQ to test the flow rates on the cooling tower.

DEQ Response to Comment No. 47

In the first paragraph of this of Comment No. 47 the commentor states that performance tests were done on the sulfuric acid plant for fluoride emissions in accordance with 40 CFR 63.626. Performance tests for fluoride emissions from the sulfuric acid plants are not required by 40 CFR 63.626. The Department presumes that the commentor misspoke and was actually referring to other performance tests conducted at the facility, most probably tests at the phosphoric acid plant. The comment also includes references to tests at the cooling towers and the granulation 3 plant. Please see the response to Comment No. 11 regarding fluoride emissions testing.

DEQ has observed performance testing at the cooling towers and is aware of the fan speed issue. See response to Comment No. 14 and 28.

In regards to the ambient fluoride monitoring issues please see the responses to Comment No. 12, 16 and 31.

Comments taken from the testimony of Kelly Wright, Shoshone-Bannock Tribes CERCLA/RCRA Program Manager

Comment No. 48

Some of the concerns that we have with the operating permit is first – is focused towards IDEQ. Under 40 CFR part 71.2, the tribes are treated as a state under the Clean Air Act. That has been neglected, and I want to make sure that I put that on record.

Along those same lines, we go into what – if you look at the Simplot's RCRA Consent Decree that they signed in district court, it states that they're going to have a three-mile radius of monitoring for fluorides. It's got vegetation sampling, and it also specifically calls out soils.

Now, the problem that we're having is you monitor one quadrant out of four. The primary quadrants that are located on the reservation is not being monitored. And you guys are magical and can put up an imaginary line. And the air emissions that I've been watching – and I do live within that three-mile radius – and the majority of the time, it lands on the reservation. So you need to back up, re-focus, and set up a government-to-government consultation with the Tribes in your process.

And in part of that you need to include the reporting mechanisms. It's very hard for us – I mean, you can treat us as the public; that's fine. But you have to go back to the original treaty that was signed in 1868, and it states that they're a sovereign nation, which puts them on the same level as a federal government, not a state.

But if you go into the Clean Air Act, they're treated equal as a state, with the state. So that, to me, is a big oversight on IDEQ, and you need to make amends for that.

DEQ response to Comment No. 48

See response to Comment No. 39.

Comment No. 49

Now, back on to the actual air modeling is another area that is neglected. My opinion, from reading other operating air permits from the state of Idaho, it's kind of ironic that this is the only place that does not have air modeling being done for their – for the operating permit.

And, again, that may tie back to the fact that is modeling going to show that all the contaminants are on the reservation and you don't want to have to deal with the health hazards there?

If we tie it back into – for instance, in 2003, Simplot was notified by IDEQ that it appears that there are high potential that the forage and vegetation contained in our wastewater management units may contain high fluoride concentration levels. These high levels may pose a potential health risk to the animals that are allowed to graze on these management units.

In 2003, Simplot was directed by the Idaho Department of Environmental Quality, as a result of the notice of violation, that work must be – they must work with the Idaho State Department of Agriculture to prepare a risk assessment based on the singular levels of the fluoride in the forage crops at specific sampling locations.

The findings and recommendations from this work included monitoring pet animals, such as horses or cattle, for molted teeth. If molting is identified, then you were to broaden the veterinarians' survey for the molted teeth to include animals grazed or fed in the forage from these properties.

Living in the vicinity of where most of the sampling locations are occurring, I'm not aware of any of the local residents having veterinarians coming out and assessing their animals for having fluoride contamination.

Along those same lines, some of the recommendations – before I get to the recommendations, I've got one more. Based on the eastern Michaud Flats RI/FS data, the following constituents showed elevated frequencies of exceedances of the RBCs for workers in soil digestion. On–site sample showed arsenic – out of 21 samples, 21 of them showed that they exceeded it. Beryllium had 22 out of 26. Lead–210 had 31 of 31; uranium–238, 31 of 31.

Off-site samples had seven chemical constituents. You had arsenic again, 128 samples out of 137 samples. Beryllium had 123 out of 138; Lead-210, 69 out of 89; manganese 138 out of 143 samples; polonium-210, 55 out of 89; potassium-40, 89 out of 89; uranium-238, 72 out of 89.

The ecological investigation on deer mice that was performed showed significant impacts on the whole body from cadmium in the Bannock Hills and the Michaud Flats, ten out of ten samples; fluoride for the whole body, again, out of the Bannock Hills and the Michaud Flats, ten out of ten samples. Fluoride in the femur, Bannock Hills only had seven out of ten, but the Michaud Flats had ten out of ten.

So you base this information and you appear – you go back and you look at the rationale of where your current monitoring is occurring, and it does not address any of these areas that are showing significant impact from this operating facility.

So the recommendations I'd like to leave are:

The locations that are southwest and southeast of the site should be sampled, because the areas south of the site have not been sampled since 1995, but has the highest historical levels of fluoride and vegetation.

Locations that are within the boundaries of the Fort Hall Indian Reservation, or locations which Tribal members may exercise aboriginal treaty right should be sampled.

Fluoride concentrations determined in vegetation and soil, and modeled wildlife ingestion doses should be compared to ecological risks.

And the last one is we need to define the ionic forms of the fluoride found within – that we're talking here, because we're talking fluorine, fluoride ions, soluble fraction, and various species are in the emissions inventory.

And what gets us back involved in again the CERCLA/RCRA issue would be the last one is your wastewater. The water that goes through the system, goes up to the gypsum stack, and gets back out, and eventually it goes all through the deal, and the emissions come out the cooling tower. It's included in the diagram that's shown or is in the information included in that packet.

And so based on the emissions that are there, you need to stress the importance of continuing do the fluoride monitoring in more quadrants than just the northeast quadrant.

Response to Comment No. 49

Please see the first paragraph of the response to Comment No. 1.

Regarding ambient fluoride standards please response to Comment No. 31 and 40. Regarding the metals mentioned in your comments please see the response to Comment No. 18. Regarding the cooling towers please see the response to Comment No. 37.

Comments from letter from Nancy Murillo, chairwoman for the Fort Hall Business Council, Shoshone-Bannock Tribes, dated 1/12/05 and part of Exhibit A of the public hearing transcript

Comment No. 50

The Shoshone-Bannock Tribes' CERCLA/RCRA Program submit the following comments concerning the J. R. Simplot Tier 1 Operating Permit. The Shoshone- Bannock Tribes located on the Fort Hall Indian Reservation are located within 50 miles of the source, meet the definition of an affected state and therefore, are afforded an opportunity to comment on the draft Tier I operating permit per 40 CFR 71.2 and IDAPA 58.01.01.008.01.

Condition 14.4 of the Tier 1 Permit

Condition 14.4 of the Tier 1 Operating permit states "No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to this paragraph must certify to the Administrator annually that he/she has complied with the requirements in this section. [40 CFR 63.602 (e)]

The Tribes believe Simplot is violating terms of the Condition 14.4. Simplot feeds decanted water into the Cold Pit Basin which circulates to the Cooling Tower Cells 1 though 8. The decanted water is made up of scrubber process water from wet scrubbing devices installed to control emissions from multiple process equipment. See CAD Drawing JRS 6490105F, Schematic of Flow.

While Condition 14.4 and 40 CFR Section 63.602 may not explicitly prohibit the indirect introduction of scrubber water into the cooling tower, the Tribes believe the intent is clear. Wet Scrubber devises to control emissions from process equipment pick up contaminants from the air stream. That is their purpose. To allow this company to indirectly enter these contaminants into the Evaporative Cooling Towers is unconscionable.

Monitoring and Record-keeping Requirements

Condition 14.8

With respect to the compliance testing in Permit Condition 14.6 and 14.7, the permittee shall, in 2003 and 2004, test one of the cooling tower cells in each of the tree [sic] reclaim cooling towers, In and after 2005, the permittee shall test two cooling tower cells in each of the three reclaim cooling towers. The permittee shall select different cooling tower cells for testing from year to year until all of the cells within a particular cooling tower have been tested. Once all cells in a cooling tower have been tested, the cell selection process shall start again.

The monitoring requirement does not adequately demonstrate compliance. The decant water that feeds the Reclaim Cooling Tower is highly variable. Multiple process parameters impact the emissions from the Reclaim Cooling Towers. A one time annual test of 2 of the 8 cooling tower cells does not provide adequate assurance.

The Tribes request a continuous monitoring system or appropriate monitoring devices be installed in the basin of the Reclaim Cooling Towers such that a representative measurement of fluoride entering the Cooling Towers can be determined.

In addition, Cadmium and Radium 226 are contaminants reasonably expected to be present in the decant water. These were risk drivers of the Eastern Michaud Flats Ecological Risk Assessment found elevated in soils and vegetation. The Tribes may request these contaminants are sampled for in the basin of the Reclaim Cooling Tower.

DEQ Response to Comment No. 50

DEQ and EPA are in the process of determining whether J.R. Simplot Company is in compliance with the scrubbing water provisions of 40 CFR Section 63.602.

Regarding monitoring emissions from the cooling towers please see response to Comment No. 15.

Comment No. 51

Condition 14.10

The permittee shall identify the entire flow path of all scrubber output and submit it to DEQ on or before the issuance of this permit.

The information derived from this condition is relevant to confirm the comment made for 14.8

Condition 14 .9-14.9.3

The Tribes request 14.9.1; 14.9.2; 14.9.3 requirements outlined in the April 2004 be included in this permit.

Implications to Tribal Land

Fluoride and other compounds have resulted in elevated concentrations in terrestrial and aquatic habitats near the Simplot facility. The Record of Decision (ROD) for the Eastern Michaud flats Superfund site indicated potential risks from fluoride to sage grouse, horned lark, red-tailed hawk, and coyote in sagebrush steppe habitat (EPA, 1998). The ROD called for the following actions as part of the selected remedy:

In order to determine the levels of fluoride present and to evaluate the potential risk to ecological receptors, a fluoride monitoring program will be implemented. The monitoring shall generally occur within the three-mile radius of the FMC and Simplot Plants (there may be specific areas outside the three mile radius, which may contain sensitive species or be of particular ecological or cultural value where sampling should also occur) and shall include sampling of vegetations, soils, and appropriate biomonitors. A monitoring plan including a quality assurance program plan and a sampling plan shall be submitted for EPA approval during the remedial design. An evaluation of monitoring data will be conducted annually to determine the fluoride levels and spatial and temporal trends in the environment. If levels which are measured indicate a risk may exist, further evaluation will occur followed by source control or other action, if necessary. 10.1.5.1 Fluoride Monitoring (Alternative 03) for both Simplot and FMC Operable Unit

Section 1.3.3 Off- Plant Area, Areas Subject to Fluoride Monitoring of the EMF ROD states: This area generally corresponds to the 3-mile radius of the RI/FS study area. (While the areal extent of fluoride contamination in the vicinity of the site is not clearly definable, and some contamination may extend beyond this boundary, it appears that the greatest impacts tot he [sic] environment would be found within the 3-mile radius. However, there may be specific areas outside the three mile radius, which may contain sensitive species or be of particular ecological or cultural value where sampling should also occur.

Section 7.2 Off-Plant Area, Cleanup Objectives for the Off-Plant Area of the ROD states:

Prevent the potential for future impacts to ecological receptors by monitoring fluoride at the site and surface water at springs. (See Table 37 of ecological COCs and Risk-based Concentrations). If monitoring data indicates that fluoride levels in the environment are increasing, beyond that observed during the RI sampling, and the potential for an unacceptable ecological risks indicated, additional actions, including source controls, may be required.

The Superfund program is unique in that it provides for the cleanup of past hazardous waste releases and of hazardous waste requiring emergency response. Congressional enactment of CERCLA was the solution to the gap in Federal environmental authority and it is intended to augment other Federal and State authorities. (EPA, 1998) If a facility is subject to state or federal rules for an ongoing release then the Superfund program will defer control of that release to the appropriate authority. The Shoshone-Bannock Tribes' CERCLA/RCRA Program recognizes the

Simplot facility is an operating facility and thus subject to the State of Idaho Air Program regulations. However, the ROD does include a requirement for continued monitoring of fluoride in the environment due to the potential risks calculated in the ecological risk assessment for plant and wildlife species of the sagebrush steppe ecosystem. If the monitoring indicates fluoride levels may be increasing then additional actions, including some source controls may be warranted. issues. [sic]

The Tribes believe the fluoride levels in vegetation and soils may be increasing due to the following information:

Emissions from the Simplot facility have continued over the years. Simplot has reported the following numbers through the Toxic Release Inventory Program:

Date	Hydrogen Fluoride Emission (pounds/year)
1992	23,300
1993	43,300
1994	12,400
1994	43,000
1995	33,000
1996	36,000
1997	33,000
1998	36,000
1999	38,000
2000	51,000
2001	46,000
2002	
2003	30,425

Simplot has not conducted any monitoring of fluoride within the boundaries of the Fort Hall Indian Reservation.

Further, the Fluoride Monitoring program that Simplot has implemented has indicated elevated levels in vegetation and terrestrial habitats.

Figure 1 below shows fluoride in grass and alfalfa collected between 1992 and 2001 at three locations north and east of the site (BAICOR, 1992, 1995, 1996, 2001). Figure 1 also shows multiple exceedences of a wildlife screening value derived from Sample et al. (1996). Fluoride concentrations were extremely high in vegetation prior to 1996, then apparent level off from 1996 to 2001 (Figure 1).

Figure 2 shows fluoride in sagebrush collected in 1992 and 1995 at locations southeast of the site (BAICOR, 1992, 1995); no BAICOR sagebrush data were available after 1995 sampling. Figure 3 shows fluoride in grass and alfalfa collected in 200 [sic] and 2001 at sample locations between one and five miles from the site (BAICOR, 2001). No decline in fluoride levels are apparent between 2000 and 2001, and exceedences of the wildlife screening value occur within three miles of the site.

Table 1 compares average fluoride concentrations in affected wildlife habitat in Bannock Hills and Michaud Flats to background concentrations and ecological screening values. This table shows that fluoride levels in soil, sagebrush and small mammals exceed background concentrations (EPA, 1998) and ecological screening values (determined for the current

document). For example, average small mammal concentrations of fluoride were 128 mg/kg at Bannock Hills and 90.9 mg/kg at Michaud Flats, whereas small mammals from the reference are (Ferry Butte) had an average of 6.8 mg/kg. These concentrations also exceed a screening value for red-tailed hawks (80.6 mg/kg prey; Sample et al.. 1996).

Table 2 shows that the average soil levels of fluoride determined in the remedial investigation/feasibility study (RI/ES) for the EMF were greater than the exposure point concentrations used to quantify risks in the ecological risk assessment (ERA) (EPA, 1995). This suggests the possibility that risks in proximity to the site (eg., three-mile radius) may have been underestimated because contaminated soils are a significant determinant of wildlife exposure.

For example, ingestion of contaminated soil comprised 78% of the estimated exposure of sage grouse in Michaud Flats (EPA, 1995). Table 2 also indicates that the highest fluoride contamination may be southeast of the site (eg., 307 mg/kg in sagebrush compared to 86 mg/kg in Bannock Hills southwest), but the southeast area was not specifically considered in the ERA. Comparison of 1994 fluoride levels in wheatgrass collected one mile north northeast of the site to BAICOR samples of grass (1995) and alfalfa (2001) collected north and east of the site suggest that fluoride levels may not have declined significantly below the levels evaluated in the ERA (Table 2).

Uncertainties in evaluating potential wildlife risks from fluoride include an absence of reported moisture content for grass and alfalfa in the BAICOR reports. Sagebrush and other native plants may have lower concentrations of fluoride than the grass and alfalfa routinely measured. For example, BAICOR (1992) reported an average fluoride concentrations of 1024 mg/kg in grass compared to 430 mg/kg in sagebrush collected approximately 1.6 miles SE of the site. Incidental soil ingestion by wildlife, are likely an important contributor to site risks because of substantially higher soil concentrations of fluoride than in biota.

Per Simplot's Tier 2 operating permit # 077-00006 and incorporated into this Tier 1 permit Simplot has conducted fluoride monitoring. All sampling locations are State land, per requirement #4 of a March 2001 letter from DEQ to Simplot.

Simplot has violated terms and conditions of this permit in the past.

In 1999, Simplot violated IDAPA 58.01.577.06b Ambient Air Quality Standards for Specific Air Pollutants- Fluoride- Primary and secondary standards are those ambient concentrations in the ambient air which result in a total fluoride content in vegetation used for feed and forage of no more that 40 ppm, dry basis, annual arithmetic mean.

In 2002 Simplot again violated terms of their Tier 2 permit for fluoride exceedences. They were assessed a penalty of $15,500 for 2 violations.

In 2003. Simplot was notified by the DEQ "it appears that there is a high potential that the forage vegetation contained in your wastewater management units... may contain high fluoride concentration levels. These high levels may pose a potential heal risk to animals that are allowed to graze on these management units.

In 2003, Simplot was directed by the DEQ, as a result of a Notice of Violation, work with the Idaho State Department of Agriculture to prepare a risk assessment based on singular levels of fluoride in the forage crops at specified sampling locations. The findings and recommendations from this work included:

- Monitor pet animals, such as horses for molted teeth. If molting is identified, then:

- Broaden the veterinary survey for molted teeth to include any animal grazed or fed on forage from these properties.

Recommendations

Locations that are southeast and southwest of the site should be sampled because the area south of the site has not been sampled since 1995, but had the highest historical levels of fluoride in vegetation.

Locations that are within the boundaries of the Fort Hall Indian Reservation, or locations at which Tribal members may exercise aboriginal treaty rights should be sampled.

Fluoride concentrations determined in vegetation and soil, and modeled wildlife ingestion doses should be compared to ecological screening values to evaluate current ecological risk.

Define the ionic forms of fluoride include fluorine, fluoride ions, soluble fraction and various species in emission inventory.

Response to Comment No. 51

Regarding the ambient fluoride standards please see response to Comment No. 31 and 40.

Comments from letter, dated April 8, 2005, from Jeff KenKnight, Manager, Federal & Delegated Air Programs Unit, U. S. Environmental Protection Agency

Comment No. 52

Cooling Tower Periodic Monitoring

Title V, in 70.6(a)(3)(i)(B), requires that the permit contain, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. When an applicable requirement does not include periodic monitoring, Title V requires that sufficient periodic monitoring be added to the Title V permit. When the applicable requirement contains periodic testing or monitoring (occurring more than once per the life of the permit) but that monitoring is considered insufficient, the permitting authority must ensure it is sufficient using the applicable process for revising the underlying requirement. Possibly the most efficient method for accomplishing this is to use "dual processing" to revise the underlying requirement simultaneously with incorporation of the monitoring into the Title V permit.

Fluoride (F) emissions from the reclaim cooling tower, emission unit group 12, are limited in condition 14.3. Conditions 14.7 and 14.8 reflect the periodic monitoring for this limit and enhance the periodic monitoring that exists in the underlying applicable requirement, which was established in a previous non-release over 50% of the F emissions from the plant. During the recent past, a vegetation F sampling program identified exceedences of the state F standard near the J. R. Simplot (Simplot) facility. During the past year, a very limited emission testing schedule resulted in measured exceedences of the F emission limits from the cooling towers.

Based on the environmental significance of the emissions and the compliance problems identified as recently as last year, the periodic monitoring in the permit appears to be insufficient, warranting more frequent and possibly better monitoring. Furthermore, if the company believes they know what was causing the measured emission exceedences (e.g. the fan speed), then IDEQ should consider creating a monitoring or operational requirement related to that operational parameter to ensure ongoing compliance. In any case, when ongoing compliance is a concern, the frequency of testing should be increased to yield reliable data from the relevant time period, until the problem is resolved and emissions are reduced. Additional testing will likely provide much more information regarding the nature of the emissions and ability of the plant to ensure compliance. IDEQ should revise the Tier II permit to include a monitoring protocol for the cooling towers that assures compliance with the fluoride emission limit and incorporate that revised monitoring into the Title V permit.

Response to Comment No. 52

IDEQ believes the cooling tower monitoring requirement in Tier I operating permit meets the "sufficiency" requirements for monitoring within the Title V permitting program (40 CFR 70.6 and as described by the Federal Register: January 22, 2004 (Volume 69, Number 14, Page 3201), known as the "umbrella rule". The requirements for cooling tower emissions monitoring are periodic and show compliance or noncompliance with underlying emissions limits as required by the sufficiency test prescribed by the Title V permitting program.

However, even though the existing monitoring is sufficient for purposes of the Tier I operating permit (Title V permit), DEQ also concurs that during the current renewal process of the Tier II operating permit the cooling towers monitoring requirements should be very carefully reviewed. In processing the renewed Tier II operating permit DEQ will solicit EPA's participation in developing the cooling towers monitoring requirements.

Once drafted, the Tier II operating permit will be made available for both EPA and the publics review. Once issued the Tier II operating permit will be incorporated into the Tier I operating permit as required by the *Rules for the Control of Air Pollution in Idaho* which includes requirements for public comments periods and EPA review.

Comment No. 53

EPA believes limited cross-referencing and incorporation by reference in permits, including calculation methods for determining compliance, meets Title V, but only to the extent such reference is unambiguous in its applicability, the permit contains obligations to report appropriate compliance monitoring data, and the manner of application is clear. Condition 10.9 describes the method for demonstrating compliance with the fluoride emissions limits in condition 10.1 and 10.2 by referencing a method specified in Simplot's June 29, 2000 application. The compliance demonstration technique required by condition 10.9 must be clearly documented in or appended to the permit to ensure that the requirements are clear and enforceable.

Response to Comment No. 53

There are 6 permit conditions in the Tier I operating permit (Sections 4.13, 4.14, 7.22, 8.22, 10.9, and 12.5) that incorporate procedures contained in the application submitted on June 29, 2000.

Though these conditions are enforceable by the Tier I permit, DEQ recognizes the difficulty to understand what the requirements are if they are not specifically listed in the permit. Therefore, DEQ intends to revise these permit conditions during the Tier I renewal process to include the relevant requirements in the permit rather than incorporation by reference.

Comment No. 54

The NESHAP MACT standards often require acceptable ranges or values be established for each of the parameters that serve to determine compliance. For MACT requirements, the acceptable parameter monitoring range must be incorporated into the permit because it is an applicable requirement. The range is normally created by recording the parameters during a compliant emission test. Once incorporated into the permit, the range or value can be revised using the minor permit modification process. In Simplot's case, the testing has been completed and the actual range or value is available; therefore, the permit must be revised to include it. Examples where parameters must be incorporated into the Simplot permit include conditions 7.17, 8.17, 12.11 and 15.10, all of which are MACT conditions.

Response to Comment No. 54

Please see the second paragraph to the response to comment 53.

Comment No. 55

In several conditions in the permit, the state process weight rate (PWR) based particulate matter (PM) limit is an applicable requirement that was removed (streamlined) when there was a more stringent PM requirement. The statement of basis (SoB) correctly documented IDEQ's thinking by comparing the two standards and explaining that compliance with the more stringent standard shall be deemed compliance with the PWR limit; however, the comparison only looked at the PWR limit as applied as a sliding scale, which would then vary with the actual processing rate at the time of any compliance determination, IDEQ should be careful to consider the range of expected processing rates that will exist before streamlining because a lower processing rate and resulting allowable emission rate might be more stringent than other applicable emission limits. Also, when streamlining two requirements, both citations should be included in the permit as the origin of and authority for the permit condition, with the streamlining two requirements, both citations should be included in the permit as the origin of and authority for the permit condition, with the streamlining explanation included in the SoB. This ensures that violation of the more stringent emission limit is also considered a violation of the streamlined limit.

Response to Comment No. 55

Please see first paragraph of response to Comment No. 1.

DEQ understands and agrees with the problems associated with "streamlining" permit conditions. DEQ intends to revise these permit conditions during the Tier I renewal process.

Comment No. 56

Condition 16.3.2 includes reference to an emission test that will be used to determine the PM emission rate from the #300 sulfuric acid plant. This latest revised permit added a statement that the test has been done. This statement is more appropriately made in the SoB. Neither the permit nor the SoB explains whether IDEQ still intends to establish PM emission limits based on the testing that was done. Also, as discussed in Comment 5 below, the underlying legal basis for the limit dictates whether a permitting process other than Title V must be followed to establish the limit. The SoB can be used to explain the current status of this requirement.

Response to Comment No. 56

For clarification purposes this comment actually pertains to Permit Condition 16.3.1 instead of 16.3.2 and DEQ did not add this statement to Permit Condition 16.3.1 as part of this permit action. The statement that the source test has been conducted is included in the existing April 5, 2004 Tier I operating permit. The statement was included at that time simply to clarify that the emissions test had been conducted. DEQ will remove this statement from the permit at the time of renewal of the Tier I operating permit.

Simplot is required to submit an application to renew the existing Tier II operating permit that has expired. In issuing a renewed Tier II operating permit DEQ will consider all testing that has been conducted at the facility.

Comment No. 57

In general, Title V permits compile all of the applicable requirements that exist in applicable regulations as well as previously issued permits. The Title V permit must identify the origin and authority for each permit term and must be accompanied by a statement of basis (SOB) that contains the legal and factual basis for the permit conditions. Permit terms based on applicable regulations often require little explanation when accompanied by an accurate legal citation if applicability of the provision to the source is straightforward. Applicable requirements that originate in previously issued permits, however, often require more explaining because the permit and SOB must include both the origin of and the basis for the permit term. This is particularly true when several permits have been issued previously; some of those are major new source review (NSR) permits or involve NSR-avoidance emissions limits, and some permits have incorporated permit requirements from earlier-issued permits. Understanding the legal basis of any particular requirement ensures that if the permit term is revised, the substantive and procedural requirements of the underlying requirement are met.

Throughout this Tier I operating permit, previously-issued permits are cited as the legal basis for the particular requirements, most often the 12/3/99 Tier II operating permit. Many requirements, however, actually originated in an earlier permit, and the referenced Tier II permit does not provide any additional insight into the basis for the requirement. In those cases, the 12/3/99 Tier permit should not be cited as the underlying applicable requirement or, at a minimum, the SOB should include an explanation of the underlying legal basis for the particular limit. IDEQ should research the previous permitting actions to ascertain and adequately document in the permit and SOB the true legal basis for the applicable requirements that have been incorporated into this permit.

As an example of the potential procedural confusion that can result from an unclear basis, condition 2.15 includes an adjustment of the emission test method and eventual adjustments of the fine Pm (PM-10) emission limits. Without a clear understanding of the underlying basis for the PM10 emission limits, it is not obvious whether Title V can be used to make this adjustment or whether the adjustment is warranted. For instance, if the emission limits were set in a previous permitting action to avoid major NSR permitting, then increasing the limits could require major NSR approval or, at a minimum, an NSR applicability determination. Likewise, if the emission limits were set based on a prevention of significant deterioration (PSD) permitting evaluation, higher PM10 emission limits may require re-evaluation for ambient impacts or BACT. IDEQ should investigate and explain whether this PM10 emission limit adjustment is consistent with the substantive and procedural requirements of the program under which it was established.

Response to Comment No. 57

Any adjustment to emission limits must occur to the underlying applicable requirements. The Tier I operating permit simply consolidates all such existing limits into one operating permit. Once these changes are made to the underlying permits they will be incorporated into the Tier I operating permit as required by the rules.

The underlying permits will be processed based on all applicable rules for that change (ambient standards, BACT, etc.) including those requirements for public comment periods and EPA review. These changes and the rules that apply to them will be discussed in detail in the SoB that supports the issuance of the changed conditions of the underlying applicable requirement.

For instance, at this time, J.R. Simplot Company is required to renew their Tier II operating permit. This will likely require change to some of the existing emissions limits. In the process of issuing that renewed Tier II operating permit DEQ will clearly outline the rules that apply, including NSR permit requirements. In short all emission limit changes will be processed in accordance with the substantive and procedural requirements of the program under which it was established, if necessary a PTC/Tier II permit will be issued instead of just a renewed Tier II operating permit. All permit actions will have an associated SoB that describes all applicable rules and how the permit conditions meet those rules.

Comment No. 58

Condition 14.4 restricts scrubber water from being sent to the reclaim cooling tower consistent with 40 CFR part 63, subpart AA. IDEQ interpreted this requirement in Section 6.8.1 of the original Sob to restrict the gypsum stack decant water from being fed to the reclaim cooling towers. Simplot challenged IDEQ's interpretation of the MACT. Without conceding their position, IDEQ removed the statement about decant water from 6.8.1 of the SoB in this last version of the permit. EPA is concerned about the revised SOB's lack of clarity and is currently working on a formal determination regarding gypsum stack decant water. We will provide our interpretation to IDEQ as soon as it is available so the permit and SoB can be revised accordingly to reflect the correct application of the MACT.

Response to Comment No. 58

DEQ looking forward to receiving EPA's formal determination regarding the gypsum stack decant water. Once the determination is final it will be made clear in the both the permit and tech memo as the rules require.

Comment No. 59

It is apparent from the descriptions in the permit and SoB that emission unit group 8, found in Section 10 of the Title V permit, is a significant source of fugitive emissions, particularly PM and F, emitting 20% of the F emitted from the entire plant. For many other emission units, IDEQ made it very clear whether fugitive emissions were emitted, often stating separate emission limits for fugitives. Doing so clarifies whether the fugitive emission requirements listed in condition 2.1, 2.2, 2.3, 2.4 and 2.11 apply to the source in question. IDEQ should make this clarification for emission unit group 8. Furthermore, in applying the state fugitive dust requirements, the state should decide whether there are specific control techniques necessary for ensuring compliance. If specific techniques for controlling fugitive dust are appropriate, the permit should clearly describe them along with the necessary monitoring or recordkeeping to ensure they are implemented. This ensures that this general requirement is enforceable as a practical matter.

Response to Comment No. 59

Please see response to Comment No. 1.

The requirement to reasonably control fugitive dust and associated monitoring requirements of permit conditions 2.1, 2.2, 2.3, 2.4 and 2.11 apply to all fugitive dust sources whether there are corresponding fugitive emissions limits or not. These permit conditions are contained in the Facility-Wide Section of the permit and applies to all sources. Section 10 of the permit (emission unit group 8) contains fugitive emissions limits for the gypsum stack (pile) that also apply.

The Tier I operating permit has the requirement to reasonably control fugitive dust emissions IDAPA 58.01.01.650 (Section 2.1 of the permit). This regulation states that reasonable control of fugitive emissions may include use of work practices, control equipment, water, chemicals or control equipment. This existing applicable requirements does not dictate that any one of these methods be used, it simply states that these methods may be considered reasonable. Permit condition 2.4 has periodic monitoring and recordkeeping to ensure reasonable control is being used.

J.R. Simplot Company is required to submit an application to renew their Tier II operating permit. In processing the permit DEQ may impose new applicable requirements such as work practices or standards.

Comment No. 60

Condition 15.1.2 lists the emission limits for fugitive emissions from the superphosphoric acid plant. The SoB, in 6.13.3.1 explains that, according to Simplot, these are no longer fugitive emissions, but rather all emissions are vented to the control device. When emissions can reasonably be vented to a control device, they are not fugitive emissions by definition. Determining which emissions are fugitive emissions and which are point source emissions is important in determining which emissions are counted in determining the applicability of the PSD and Title V programs. The Title V permit should correctly clarify whether these emissions are fugitive or not.

Response to Comment No. 60

The Tier I operating permit must contain all existing applicable requirements that apply to the facility. In this case, the Tier I operating permit limits of Section 15.1.2 originated in the December 3, 1999 Tier II operating permit and must be included in the Tier I permit.

In processing a NSR permit application or a Tier I operating permit application DEQ will count fugitive emissions towards the facilities potential to emit as defined by the applicable rules. In the case of the Superphophoric Acid Plant, all fugitive emission would count because these emissions emanate from a designated facility (Phosphate Rock Processing Plant).

As a point of clarification the SoB that supports this permit action to include the settlement agreement for the cooling tower monitoring issues does not contain the statement explaining "...these are no longer fugitive emissions, but rather all emissions are vented to the control device". DEQ intends to revise these permit conditions during the Tier II operating permit and Tier I renewal process. At this time the Tier I operating permit includes all applicable requirements that apply to the facility, including the emission limits for fugitive emissions from the superphosphoric acid plant.